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ANNUAL MEETING, CHANDLER, ARIZONA
April 28, 29, 30; May 1 and 2, 1959

in amenorrhea . . .

HIGHLY EFFECTIVE CYCLIC THERAPY

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PACKAGING: 5-mg. scored tablets, bottles of 30.

REFERENCES: (1) Greenblatt, R. B., & Jungck, E. C.: *J.A.M.A.* 166:1461 (Mar. 22) 1958. (2) Hertz, R., Waite, J. H., & Thomas, L. B.: *Proc. Soc. Exper. Biol. & Med.* 91:418, 1956.

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ARIZONA MEDICINE

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ARIZONA MEDICINE
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Original Articles

THE VALUE OF ENDOMETRIAL CULTURES IN THE DIAGNOSIS OF ENDOMETRITIS*

By Byron Butler, M.D., Med. Sc. D.
Phoenix, Ariz.

CULTURING of the endometrium can be a valuable adjunct to diagnostic and therapeutic gynecology. In the past 2½ years this procedure has radically changed my method of sterility investigation, and has been the key to diagnosis and treatment of otherwise perplexing cases. In practice, a bacteriologic approach such as this broadens one's horizon beyond dependence upon pathology and manual examination. Then, too, it is simple to take an endometrial culture, for whenever a curettage or an endometrial biopsy are done, a portion of the curettings can be placed aseptically into a sterile tube, and cultured aerobically and anaerobically. If an organism grows out, it can be identified and, by means of sensitivity studies, the antibiotic of choice for therapy determined.

The fundamental principles involved can be briefly stated as follows: The normal external os of the cervix almost always harbors bacteria, while the uterine cavity is sterile. Thus, the cervical canal acts as a nearly perfect lethal chamber for bacteria, although, amazingly, it allows spermatozoa to pass through freely. This selective barrier works well, but its function can be disrupted by pathology within the tubes, the uterus or in the cervix. The uterine cavity recovers rapidly from a single insult of low pathogenic bacteria, but falls victim to repeated probings and to more virulent organisms and thereby becomes chronically infected. An infected uterine cavity may be symptomless, but it lies in wait for the unwary to disturb it and to spread infection to the adjacent tubes, lypmhatics or blood stream where it produces obvious signs and serious symptoms.

We are all familiar with the infected criminal abortion where both of these admonitions have been violated. That is, repetitious invasion of the uterine cavity and introduction of virulent bacteria on poorly sterilized instruments. Also, we realize how precarious our position is when the abortionist starts things and we unsuspectingly finish what is apparently an uncomplicated incomplete abortion. We later encounter septicemia and pelvic cellulitis, for our sterile technique will not correct for the violations already committed. But if at curettage in these cases, a portion of the endometrium is cultured, infection can be diagnosed early and specific therapy instituted promptly.

Nearly Fatal Case

My own interest in this subject was initiated by a nearly fatal case. The patient was 23 years old and had had repeated curettements and endometrial biopsies over a four-year period for menorrhagia and metrorrhagia. Since all previous studies had been to no avail, a hys-

*Presented Dec. 6, 1957, Medical Society of United States and Mexico — Tucson, Ariz.

teroscopy was done to rule out a submucous fibroid possibly missed by the previous procedures. The Norment hysteroscope was used and the uterine cavity distended with sterile water as one would use a cystoscope in the bladder. Prior to this case, I had done 25 hysteroscopies without a single complication, but post-operatively this patient developed septicemia, peritonitis and salpingitis due to staphlococcus aureus. Only the most intensive antibiotic therapy saved her life. Although a uterine culture was not taken at the time of hysteroscopy, I believe that this patient had a chronic endometritis due to the many previous invasions of the uterus, and that the irrigation of the uterus with water under pressure forced bacteria into the peritoneum, tubes, and blood stream.

Similarly, it is distressing to have salpingitis and peritonitis develop following a tubal insufflation, for subsequently these patients are unusually hopelessly sterile to say nothing of their protracted and difficult convalescence. Awareness of subtle chronic endometrial infection and the usual history of preceding repeated uterine instrumentation could prevent such complications.

To aid infertility patients where the cervical mucus is hostile to sperm, or where there is a low sperm count, infertility specialists have injected semen into the lower cervical canal and even directly into the uterine cavity. In a few of my own cases in which this was done, focal areas of endometritis were found on endometrial biopsies done subsequently. On culturing the endometrium of these cases, staphylococcus, streptococcus, and E. coli grew out. These patients had no fever, discharge, or change on pelvic examination. The diagnosis depended largely on the endometrial culture and the pathologic picture in the endometrium of widespread inflammation. The high incidence of true endometritis in these cases precludes against the rational use of either cervical canal or uterine cavity insemination, for these procedures are dangerous and unsuccessful. Contrariwise, however, the proper use of the cervical cap was not followed by endometritis and may be used without fear.

Tests Done In Hospital

The usual sterility study requires repeated cervical canal instrumentation. That is, endometrial biopsy, tubal insufflation, hysterosalpingogram, post-coital tests and curettement. In some more difficult cases, the above procedures may be repeated many times. In my own study, the incidence of positive endometrial culture and pathological evidence of endometritis was directly proportional to the frequency of the procedures. Because of this study, reported elsewhere (1) in detail, I no longer diminish the already lowered fertility of my patients by subjecting them to these repetitious procedures. Rather, these patients are admitted to a hospital, and all of the diagnostic tests necessary are done at one time under anesthesia and with operating room asepsis. The operation is done a few days premenstrually. A tubal insufflation, measurement of the cervical-uterine ratio, a hysterosalpingogram, a curettage, a uterine culture, and cervival repair as indicated can be done satisfactorily at one time. Post-operatively, the patient may be placed on antibiotic therapy prophylactically. If the endometrial culture should grow out an organism, sensitivity studies will indicate the drug of choice to be used. Subsequently, instrumentation of the cervix and uterus should be avoided.

This method is ideal for the new sterility patient who has had no previous studies for nearly always the intra-uterine culture will be sterile and the post-operative course is smooth and afebrile. Not so the patient who in the past has had repeated studies, even as long ago as six months, for in these cases, 10 per cent or more will have a chronic uterine infection and in these infected cases, performance of diagnostic procedures may be followed by serious complications. In these suspected cases, antibiotic therapy should be instituted with a broad spectrum antibiotic for five to seven days preoperatively. Within 24 hours after the curettage, the endometrial culture will show whether or not there was persistent endometrial infection. If so, the best suited antibiotic can be started if required by the clinical course of the patient. Thus, infection if present may be cured, and thereby prevented from spreading to structures which can make infertility absolute. If it is not present, there has been no harm. To reiterate, to prevent introduction and spread of infection into the uterus, a complete sterility study should be done at one time and preferably under anesthesia; thereby

we will protect and aid the remaining fertility of our patients.

Grouping of Cases

More recently a comparison of the endometrium and cultures obtained in all types of cases in a general gynecological practice has been made but, surprisingly, a lack of an absolute correlation between the pathological picture of acute or chronic endometritis and positive culture was found. In fact, the cases studied so far, can be divided into four groups: In group I, there is definite pathological evidence of endometritis and a positive culture for a pathogen. In group II, the culture is positive, but not necessarily for a pathogen, and the endometrium has no signs of infection. In group III, there is a pathological picture of endometritis, yet the culture is negative, and in group IV, the culture is sterile and the endometrium is normal. There is little question that group I cases have true endometritis and that group IV are normal and sterile. Group II may represent contamination of sterile endometrium during the process of taking the culture, while group III would indicate that normally there may be considerable leucocytic and lymphocytic invasion of the endometrium but that this is not necessarily due to bacterial infection.

Class I represents obvious cases of endometritis. That is, the culture is positive for a pathogen and the endometrium has pathologic changes consistent with inflammation. In this group one will find most cases of intra-uterine and cervical canal insemination, 10 per cent to 20 per cent of patients who have had repetitious invasions of the uterus subsequent to sterility studies, most criminal abortions, and rare but recalcitrant cases of menorrhagia and metrorrhagia. Then, too, there is endometritis associated with pelvic inflammatory disease, as well as that found with polyps and growth in the uterus which have prolapsed through the cervix and lie in the vagina. Likewise, following the protracted use of stempessaries and wishbone contraceptives and even with proper use of intracavitary radium, uterine infection will nearly always be found; for any mechanical object extending from the grossly infected vagina into the sterile uterine cavity will in time overtax the bacteriostatic function of the cervix. Then too, the integrity of the cervical canal may be compromised by too high amputation of the cervix as with the Manchester procedure, or following a traumatic delivery when the cervix is deeply lacerated. Also, uterine infection is occasionally found when the cervical canal is widely patent and there is no effective sphincter action of the internal os.

Avoiding Complications

To summarize, whenever there is tubal infection above or interference with the homeostatic function of the cervix below, uterine infection may occur. Awareness of this possibility will be of value to all who treat these patients, for thereby complication can be avoided and therapy becomes rational and effective.

Both the culture is sterile and the endometrium is normal in class IV, and most patients are in this group. They include cases of functional bleeding, spontaneous abortion, uterine polyp, cancer and growths that do not prolapse through the cervix. Patients with erosion of the cervix, dysmenorrhea, and endometrial hyperplasia also, nearly always have a sterile uterine culture.

The intermediate classes II and III, should be considered as not having true endometritis; for in class II although the culture is positive, the organism is not usually a pathogen and in class III, if the culture is sterile, the endometrial changes are not due to bacteria.

Finally, by actual experimentation, it was found that in nearly all class I cases which were treated with a specific antibiotic, the endometrium became sterile and free from inflammatory changes. This evidence is presented as proof for the identity of a distinct clinical entity, endometritis, and indicates its therapy by specific antibiotic action.

Summary

Repeated uterine instrumentation may be followed by endometritis. This may be prevented in infertility investigations by doing a complete study at one time and preferably under anesthesia.

In gynecology, endometritis occurs whenever the bacteriostatic function of the cervical canal is interferred with. Its recognition in abortions, prolapsed submucous fibroids, and inadequate cervical canals indicates at once additional rational therapy with specific antibiotics.

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IMPORTANCIA DE LOS CULTIVOS ENDOMETRIALES EN EL DIAGNOSTICO DE LA ENDOMETRITIS

Por B. Butler, M.D., Med. Sc.D.
As Translated by A. Olivares, M.D.

LOS CULTIVOS del endometrio puden ser de una ayuda valiosa en el diagnóstico y tratamiento en Ginecología. En los últimos dos años y medio este procedimiento ha cambiado radicalmente nuestro método de investigación en osteriliadad y ha sido la llave en el diagnóstico de muchos casos insondables. En la práctica, un acercamiento bacteriológico como este, abre un amplio horizonte, antes que depender en la sintomatología y el examen manual. Además de que as muy simple tomar un cultivo del endometrio cuando quiera que se haga un curetaje uterino o una biopsia del mismo, una pequeña porción de la muestra obtenida puede ser fácilmente colocada asepticamente en un tubo estéril y cultivada para agentes anaerobios y aerobios. Si algún organismo se desarrolla, este puede ser identificado y por medio de la prueba de la Sensibilidad, escoger asi el antibiótico apropiado para el tratamiento.

Los principios fundamentales pueden exponerse brevemente de la siguiente manera: El orificio externo del cuello uterino casi siempre aloja gérmenes patógenos, mientras que la cavidad uterina es estéril. El canal cervical actua como una casi perfecta cámara letal para las bacterias, pero asombrosamente permite el paso del espermatozoide a traves de él. Esta barrera selectiva trabaja muy bien, aunque su función puede ser fácilmente interrumpida y dar origen a infecciones en las trompas, en el utero o en al mismo cuello. La cavidad uterina tiene la ventaja de recuperarse rápidamente de una pequeña invasión bacteriana de baja toxicidad, pero puede caer víctima de repetidos sondeos y de mas virulentos organismos e infectarse crónicamente. Una cavidad uterina cronicamente infectada puede no dar síntomas, y la infección permanecer alli esperando por el incauto que la extienda hasta las trompas, los linfáticos o el torrente circulatorio donde producirá evidentes signos y serios síntomas.

Todos estamos familiarizados con los abortos criminales infectados donde todas las admoniciones han sido violadas. Esto es, invasiones repetidas de la cavidad uterina y la introducción de agentes bacterianos por medio de instrumentos pobremente esterilizados. Comprendemos cuan precaria as nuestra posición cuando los aborcionistas comienzan estas cosas y nosotros sin sospechar tenemos que terminar con lo que aparentemente es un incomplicado aborto incompleto. Más tarde encontramos septicemia y celulitis pélvica y nuestra técnica estéril no corrigió las violaciones ya cometidas. Pero si al tiempo de la dilatación y el curetaje en todos estos casos una porción del producto obtenido es cultivado, la infección podría ser diagnosticada temprenamente y la terapeútica especifica instituida prontamente.

Nuestro interés en esta materia se inició por un trágico y casi fatal caso. Se trataba de un paciente de 23 años de edad que había tenido repetidos curetajes y biopsias endometriales por un periodo de más de cuatro años debido a menorragias y metrorragias. Como los previos estudios no fuesen eficaces decidimos hacer una histeroscopía para investigar a cerca de la posibilidad de un mioma submucoso posiblemente no descubierto en los procedimientos anteriores. Empleamos el histeroscopio de Norment y dilatamos la cavidad uterina con agua estéril tal como cuando se hace una cistoscopía. Con anterioridad a este caso, habiamos hecho 25 histeroscopías sin ninguna complicación, pero nuestro paciente desarrolló una septicemia post-operatoria, peritonitis y salpingitis debido a estafilococos aureus. Solamente una terapeútica heróica salvó su vida. Aunque, un cultivo uterino no fué tomado al tiempo de la histeroscopia, pensamos que ella debió padecer de una endometritis crónica debida a las muchas invasiones previas y que la irrigación del utero con agua bajo presión empujó las bacterias hacia el peritonéo, las trompas y al torrente circulatorio. Es penoso también que se desarrolle una salpingitis y peritonitis inmediatamente después de una insuflación de las trompas, por consiguiente estos pacientes serán estériles sin esperanzas y harán una prolongada y difícil convalescencia. La sospecha de sutiles in-

fecciones crónicas del endometrio y la historia usual de anteriores y repetida instrumentación, podrían prevenir tales complicaciones.

Con la mira de ayudar a pacientes estériles en donde la mucosa cervical es hóstil al esperma o donde hay un bajo recuento de espermatozoides, especialistas en infertilidad han inyectado semen dentro de la porción baja del canal cervical y aún directamente dentro de la cavidad uterina. En unos pocos de nuestros propios casos en que esta fué hecho, se encontraron areas de endometritis focal en biopsias endometriales hechas posteriormente. El cultivo del endometrio en estos casos desarrolló, estafilococos, estreptococos, y E. coli. Estos pacientes no habian tenido fiebre, secreción vaginal o cambios notables en el examen pelvico. El diagnóstico dependió largamente de los cultivos endometriales y del cuadro patológico de una inflamación ampliamente extendida. La alta incidencia de endometritis verdadera en estos casos presagió en contra del uso racional de inseminación del canal cervical o de la cavidad uterina y que son peligrosos y sin éxito. Al contrario, sin embargo, el buen uso de los tapones cervicales para inseminizar no fué seguido por endometritis y pueden ser usados sin ningún temor.

Los usuales estudios en esterilidad requieren una repetida instrumentación del canal cervical. Esto es, biopsias endometriales, insuflación de las trompas, histerosalpingogramas, pruebas después del coito y curetajes. En algunos casos difíciles los procedimientos anteriores tienen que ser repetidos muchas veces. En nuestros propios estudios, la incidencia de cultivos positivos del endometrio y la evidencia patológica de endometritis fué directamente proporcional a la frecuencia de estos procedimientos. Una información detallada a cerca de este estudio, será presentado pronto en un artículo que sobre "Fertilidad y Esterilidad" está próximo a ser publicado. Se disminuyó la ya presente baja fertilidad de los pacientes, evitando en ellos la repetición de los ya mencionados procedimientos. En lugar de esto, los admitimos al hospital y se hacen todas las pruebas necesarias a un tiempo bajo anestesia y con asepsia. La operación se hace unos pocos días antes de la fecha premestrual. Insuflación de las trompas, la medida de la proporción cervico-uterina, histerosalpingogramas, curetaje, cultivo endometrial y una reparación cervical, puede ser hecho satisfactoriamente al mismo tiempo. Post-operatoriamente el paciente debe ser colocado bajo antibióticos como una terapeútica profilactica. Si el cultivo endometrial desarrolla algun organismo, el estudio de sensibilidad indicará el antibiótico de elección que debe ser usado. Posteriormente toda instrumentación del cuello y del utero debe ser evitada.

El método anterior es ideal para los nuevos pacientes que padecen de esterilidad y quienes no han tenido previos estudios y en quienes casi siempre el cultivo intrauterino será estéril y el curso post-operatorio sin complicaciones y afebril. No asi los pacientes quienes en el pasado han tenido repetidos estudios y aunque ellos hayan sido hechos tan distantes como seis meses; de estos casos el 10% o más tendrán una infección uterina crónica y cualquier procedimiento diagnóstico que se intente puede ser seguido por serias complicaciones. En los casos sospechosos una terapeútica con antibióticos de amplio espectrum debe ser instituida por 5 o 6 días preoperatorios. En el espacio de 24 horas el cultivo del endometrio mostrará si hay o nó una infección endometrial persistente. Si asi fuere, el más apropiado antibiótico puede ser comenzado si el curso clínico del paciente asi lo requiere. Asi, si alguna infección está presente será curada y de tal modo se evitará extenderla hacia estructuras que pueden hacer la infertilidad absoluta. Si la infección no está presente no han habido daños. Para prevenir la introducción y la extensión de infecciones dentro del utero, un estudio completo de esterilidad debe ser hecho a un tiempo y preferible bajo anestesia; de este modo protegeremos a nuestros pacientes y ayudaremos a mantener lo que aún queda de fertilidad en ellos.

Recientemente comparamos el endometrio y el cultivo obtenido en todos los tipos de casos que en una práctica general de ginecología se pueden encontrar. Sorprendentemente en nuestra experiencia ha habido una falta absoluta de correlación entre el cuadro patológico de una aguda o crónica endometritis y la positividad de los cultivos. En efecto, los casos encontrados hasta ahora, pueden dividirse en cuatro grupos: en el grupo I, hay una evidencia patológica de endometritis con un cultivo positivo para agentes patógenos. En el grupo II, el cultivo es positivo, pero no necesariamente para un agente patógeno, y el endometrio no presenta signos de infec-

ción. En el grupo III, hay un cuadro patológico de endometritis y el cultivo es negativo, en el groupo IV, el cultivo es estéril y el endometrio normal. No hay duda a cerca de que los casos del grupo I tengan una endometritis verdadera y que el grupo IV sea normal y estéril. El groupo II puede representar contaminaciones de un endometrio estéril durante el proceso de tomar el cultivo. Mientras que el grupo III indicará que normalmente hay un considerable número de linfocitos y levcocitos invadiendo el endometrio, esto no es necesariamente debido a infección bacteriana.

El grupo I representa casos evidentes de endometritis. Esto es, el cultivo es positivo para agentes patógenos y el endometrio presenta cambios patológicos consistentes en inflamación. En este group I encontraremos que más de los casos presentan diseminación intraterina y del canal cervical, que del 10 al 20% de los pacientes han tenido invasiones repetidas del utero subsequentes a estudios de esterilidad; muchos a abortos criminales, y algunos casos raros pero recalcitrantes de metrorragia. También se presenta el caso de endometritis con inflamaciones de la pelvis como aquellas encontrados en polipos endometriales que se han prolapsado a traves del cuello y se alojan en la vagina. Asi como las que siguen al uso prolongado de pesarios, contraceptivos intra cervicales y aun con el propio uso de radium intracavitario. Infecciones uterinas serán casi siempre halladas por alguna extensión mecánica desde la vagina groseramente infectada hasta la cavidad uterina que algunas veces sobrepasa la función bacterióstatica del cuello uterino. También la integridad del canal cervical puede verse comprometido por amputaciones altas del cuello tales como en la técnica de Manchester o después de partos traumáticos en que el cuello es profundamente lacerado. También se encuentran ocasionalmente infecciones uterinas como causa de un canal cervical ampliamente abierto y con un esfinter interno inefectivo. Para sumarizar, dondequiera que haya una infección de las trompas arriba o una interferencia de la función homeostática del cuello abajo, puede ocurrir una infección uterina. El conocimiento de esta posibilidad será de gran valor para todos quienes traten estos pacientes, de tal modo, muchas complicaciones pueden ser evitadas y la terapeútica será racional y efectiva.

En el groupo IV el cultivo es estéril y el endometrio normal, la mayoria de los pacientes están en este grupo. Ello incluye casos de hemorragia funcional, abortos espontáneos, polipos uterinos, cáncer y excrecencias que no se prolapsan a traves del cuello. Pacientes con erosiones del cuello, casi siempre tienen un cultivo uterino estéril.

dismenorrea, hiperplasia endometrial también

Los grupos inmediatos II y III serán considerados como endometritis no verdaderas aunque para el grupo II el cultivo es positivo, el organismo no es usualmente un agente patógeno y en el grupo III, si el cultivo es estéril los cambios endometriales no son debidos a bacterias.

El argumento final para ser presentado será una adición moderna a las Leyes de Koch. : Si un cultivo para un agente patógeno es negativo y si los cambios inflamatorios desaparecen simultáneamente después de haberse tratado con un antibiótico al cual el micro-organismo es sensitivo entonces debemos decir que el micro-organismo aislado fué el agente causal.

Por experimentación, se encontró que casi todos los casos del grupo I que fueron tratados con un antibiótico especifico el endometrio resultó estéril y se encontró libre de cambios inflamatorios. Esta evidencia es presentada como una prueba para la identidad de una entidad clínica distinta, endometritis, e indica su terapeútica por acción específica de antibióticos.

RESUMEN.

La instrumentación uterina repetida puede ser seguida por endometritis. En las investigaciones sobre esterilidad, esto puede ser prevenido haciendo un completo estudio a un tiempo y bajo anestesia.

En ginecología ocurren endometritis siempre que la función bacteriostática de el canal cervical se encuentre interrumpida. Su reconocimiento en abortos, fibroides submucosos prolapsados e inadecuados canales cervicales, indica que una terapeútica racional con antibióticos especificos debe ser instituida inmediatamente.

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RESPIRATORY ALLERGY AND ENVIRONMENT CONTROL*

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A MOTHER frequently will complain that her child has "one cold after another," and may add that there has been more than one time when the "cold" has been followed by bronchitis, or even pneumonia. Investigation will often reveal that between these episodes of colds there is a more or less continuous presence of excessive sneezing and nasal itching. The minor symptoms of sneezing and itching of the nose do not particularly disturb the patient or his mother and, unless these symptoms are sought out, neither will think to mention their presence to the doctor.

They are important, however, for two reasons:

(1) They help to identify the "colds" as probably of allergic rather than infectious etiology. This, in turn, suggests the possibility that some of the so-called "colds," as well as the episodes of bronchitis and pneumonia, were actually episodes of asthma.

(2) They afford a continual guide as to how any plan of treatment is progressing, since one can usually safely assume that the etiology of these minor symptoms of sneezing and itching of the nose, and the etiology of the more severe episodes of coughing and wheezing, is the same.

CONTINUITY SYMPTOMS

When present, these are of great value as diagnostic and therapeutic guides.

A. *OF ALLERGIC RHINITIS:*

1. Excessive sneezing.
2. Nasal itching (rubbing).

B. *OF ASTHMA:*

1. Chronic night cough.
2. Cough or wheezing on exertion.

The effectiveness of a program to prevent asthma can often be promptly judged by its effect on one or more "continuity" symptom.

Fig. 1

The etiology of the respiratory allergy picture just described is inhalant in nature, more often than not. In children, all the other categories of etiology do not add up in frequency to as high an incidence as that of inhalant allergy.

Under inhalant allergy, two broad categories are of particular importance: household inhalants, and pollens. I will discuss household inhalants particularly, as I feel their control is often a most neglected area and one in which we may often help our patients greatly. In this discussion I would like the reader to keep in mind that I am referring to the problems of a known house dust-sensitive patient, one whose skin test or history — usually both — give convincing evidence that house dust is a problem to him. The comments made will *not* refer to the patient whose asthma or allergic rhinitis is entirely of food, pollen, bacterial or psychogenic origin. In my opinion, however, they *will* apply to over three-quarters of children with respiratory allergy, since over that number *are* allergic to household inhalants. Included under this term are house dust, animal epidermals, feathers, kapok, and cotton linters.

House dust is the most common cause of asthma; it is also the most frequent reactor by skin test. It follows that house dust should be worthy of our greatest attention and efforts at eradication. It is surprising, however, to see how seldom a serious effort is made to control it. This may be because of the seeming impossibility of making an inroad on so prevalent a substance — one which, a mother will point out, is present in all the rooms of a house, and in all neighbors' homes as well. But, if house dust really *is* the most common cause of respiratory allergy, *anything* we can do to reduce or eliminate it should be very worthwhile. Let us examine the possibilities.

House Dust Is Different

House dust has nothing to do with dust originating out-of-doors — with soil, or earth, or road dust. It is lint and dust originating *inside* the house from its contents — chiefly its furnishings — and from kapok and cotton linters in particular. It is what can be seen floating in the air

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ASTHMA IN CHILDHOOD

POSSIBLE CAUSES		TRIGGER MECHANISMS
	per cent	Climate
Inhalant	80 to 90	Emotion
Food	10 to 15	Odors – Smoke
Bacterial	1 to 2	Upper Resp. Infection
Other	2	Exertion and Fatigue

Fig. 2. Inhalant substances, especially house-dust, are the most common cause of childhood asthma.

when a shaft of light from a movie projector lights up thousands of particles between the light source and the screen. These particles come chiefly from stuffed furniture, from pillows, mattresses, box springs, sofas, davenports, studio couches, lined draperies, stuffed toys, and at times rugs and rug pads. None of these items are found out of doors or at school. It follows that, as far as house dust is concerned, we do not have to be concerned with the time a child spends out of doors or in school.

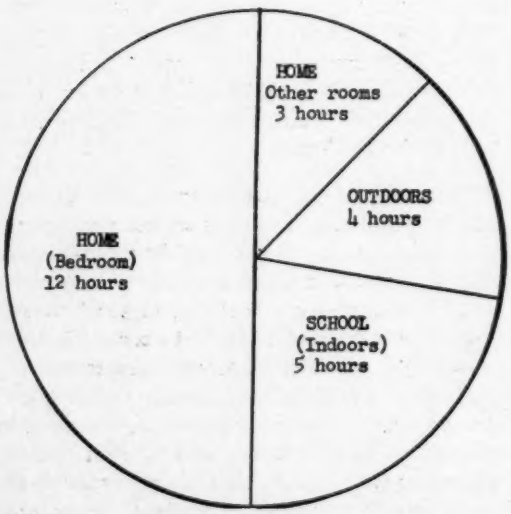

Fig. 3 ALLERGY IN CHILDHOOD
24 HOURS IN THE LIFE OF A CHILD

Where house dust is a factor in asthma (and it is the most frequent single cause), its removal from the bedroom alone accomplishes a great deal. The above diagram shows that 80 per cent of a child's contact with house dust is in this one room. At school and out of doors there may be dirt, but no "house dust."

The remainder of a child's life is spent mostly in one room – his bedroom. If he sleeps nine or 10 hours in this room and studies, plays or dresses and undresses another one to three hours, then about half his life is spent in this one area. Viewed in this manner, an all-out effort to eliminate sources of dust in a child's bedroom seems logical. By an "all-out" effort is meant just that– one which does not compromise, go half way, or cut the corners. Such sources of kapok or cotton linters as can be elmininated – like pillows or stuffed toys – are removed, and those which cannot be given up – like a mattress or box springs – are encased. The encasing is done properly, never with a plastic casing, which invariably deteriorates quickly, but with one made especially for the allergic or asthmatic patient which is practically dust-proof and will hold up for years. All upholstered furniture is removed; replacement by metal, wooden or rattan furniture is permitted. Lined draperies, woolen rugs, and hair pads are removed. If desired washable cotton throw rugs may be used. Pillows of dacron or rubber are non-allergic and are permitted. The closet is stripped of dust producers. The heating vent is closed, sealed off and, if room heating is necessary, an electric heating unit is obtained.

Next in consideration are animal epidermals and danders. By this is meant chiefly cats and dogs. There is probably no one area in which environment control is as neglected as it is here. Although cats and dogs are known as common causes of asthma the world over, parents and physicians still hesitate to enforce a "no pets" rule in the home of an asthmatic child. If history, scratch test or intradermal test indicate either dog or cat sensitivity, it is of course obvious that neither animal should be allowed in the home. Even when the skin test is negative, the child may be *clinically* sensitive to cat or dog and these animals should, therefore, not be permitted in the home.

No Pets

If the child is not yet sensitized to dog or cat dander, it is most unwise to permit him intimate contact with these animals since, if he is sensitive to one household inhalant such as house dust, he is an excellent candidate to become sensitive to another. In such a case, on a prophylactic basis alone, one is justified in ruling out cats or dogs as pets. Keeping the animal in the basement or the backyard, or away from the patient by some other means, while retaining it on the premises, simply does not work. It is teasing the child, as well as the animal, to try to enforce separation in this way and, more important, it is

hardly ever successful for more than a few weeks.

Only on a farm in the country, where a pet has other territory to roam and has never been and never will be in the house, is it practical to consider keeping a pet. Rackemann(1) of Boston, in reviewing the records of 449 adults who had been seen with asthma as children, concluded that failure to remove cats and dogs was a common reason for poor results. He writes: "All too often the family was slow to eliminate the dog or cat and our advice was not given with sufficient conviction and emphasis."

In our clinic we have a sign on the wall which reads: "Patients with asthma should not have cats, dogs, or feather pillows." It does *not* add, "if their skin test is positive."

Feathers, of course, can be another potent source of asthma and to have an asthmatic spending a third of his life sleeping on a sack of such a well known allergenic material is obviously unwise. If he is fortunate enough not to be feather-sensitive, there is no point to exposing him so throughly to the risk of becoming sensitized. Besides feather pillows, eiderdown comforters and birds should also be eliminated.

I have indicated that kapok and cotton linters play an extremely important role in house dust allergy. Cohen(2) found evidence that aging alone increased the antigenicity of these substances, while Rackemann(3) suspected that an interaction between these fibers and a mold caused a decomposition product which was allergenic. There is without question some factor that brings about increased antigenicity with age.

Kapok skin-testing material, however, is prepared from *fresh* fibers and usually produces a negative reaction even in an individual known to be sensitive to kapok in furniture. Those who care for asthmatics — some 75 to 80 per cent of whom are house dust-sensitive — should visit a mattress renovating establishment at least once to see what aging and decomposition can do to kapok and cotton linters. Some of the cheaper grades which start out as short, brittle fibers end up, after several years of aging, as little more than a powder. Such material in an old mattress or old upholstered furniture represents the heart of the house dust problem and can ruin any program of desensitization, medication, or other approach to the treatment of the house dust-sensitive asthmatic.

Other Rooms

We have thus far dealt largely with an "all out" attack on bedroom dust and have not spoken about other rooms in a home which may contribute house dust. These include the other bedrooms and the living room in particular. The dining area does not usually present much of a problem, and the kitchen and bathroom are not sources of dust. How much attention these other rooms require will depend, of course, on what is in them, the degree of sensitivity of the patient and how much time is spent in such rooms. Frequently the control of the patient's bedroom alone suffices to give adequate results.

There is a quantitative aspect to allergic sensitivity which is not adequately appreciated. Each patient has a tolerance for a certain amount of his allergen and the extent of trouble he has when this is exceeded depends to a marked degree on the amount of his exposure. If the parents' bedroom has feather pillows and the child regularly gets into their bed, it is obvious that the removal of feather pillows from his own bedroom will be less effective. If the television room contains some rich sources of house dust, he may still have trouble in this room, even though dust-proofing his bedroom has brought about a striking improvement. In most cases, fortunately, if the patient's bedroom is properly prepared, not a great deal will have to be done in other rooms of the home.

The importance we attach in our Children's Allergy Clinic to the sort of environment control I have outlined is based on the results it has obtained with our patients. We try not to be too academic in the matter of skin-test interpretation. If house dust alone gives a positive skin test, we believe the entire program should be put into effect. If *one* epidermal substance gives a positive test we strongly suspect *other* epidermals are also capable of causing trouble. If cat hair is positive and the animal is relinquished, we are not persuaded by the parents that a negative test to dog means a dog may remain in the house. It is asking too much of skin tests to have them do our thinking for us. They are not *that* reliable, and the extracts we use are not *that* good. I do not always discuss skin tests in detail

with parents. It is bad enough that *I* risk being misled by them without involving the parents. If the skin test to an inhalant is negative, but the history is convincingly positive from an intelligent and reliable parent, I will ignore the skin test and believe the parent. If a child sneezes and rubs his nose when playing with the dog, or if a lick by the dog causes redness of his skin, I consider the child to be sensitive to dog no matter what the report on the skin test indicates.

Scratch Tests Important

This is not to say I do not get a great deal of help from scratch tests to inhalant substances. I would be very unhappy if I had to give them up, and I consider them important enough to do myself. It is, nevertheless, important to realize their limitations, to make liberal use of control tests, and not to interpret the tests too narrowly.

In order to drive home to our patients the importance we attach to the environment control program, every patient on such a program is given written directions for bedroom dust control, (see appendix) in addition to a pamphlet on the subject of allergy in general. He is shown models of bedrooms which are furnished in the correct and incorrect manner. If the parents cannot afford to buy the proper encasings, the Crippled Children's Guild of San Francisco, which has been of tremendous help over the years in this regard, assists him in their purchase. Finally, an appointment is made to visit the patient's home, and we learn a great deal about the reasons for success, as well as failure, on these visits. They also have considerable psychological value, by impressing on the parents the importance we attach to the house dust control program. In addition, the visit often reveals errors or omissions, the correction of which are of real value to the patient.

There are additional aids which we are glad to employ in carrying out our program, but only when they are used in *addition* to and not *instead* of the elimination and control measures described. One of these is the use of electrostatic air filters which are expensive but useful adjuncts to a dust-elimination effort.

The *most* useful and frequent addition to a control program is the giving of immunizing injections of house dust. These usually increase a patient's tolerance significantly and, when combined with elimination measures, give satisfying results. The immunizing approach alone, however, is neither logical nor nearly as effective light happens to reveal them. When breathed into the nose and lung of the house dust sensitive person, these particles cause allergic swell- and often gives results which are very disappointing.

Summary

1. Most respiratory allergy in children is inhalant in nature; house dust together with animal emanations and feathers, constitutes the major portion of the problem of year around symptoms.

2. The elimination of all sources of house-dust in the patient's bedroom will go far toward eliminating most of his contact with house dust.

3. Cats and dogs are frequent causes of inhalant respiratory allergy; no child known to be sensitive to a household inhalant should have these pets.

4. Immunization with house dust extract is not logical nor as effective as it should be unless combined with elimination measures.

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APPENDIX

House Dust Allergy

More effective than any other procedure in relieving symptoms due to house dust is the removal of its various sources in the home. The bedroom, particularly, must be made as dust-free as possible. More time is spent breathing the air of this room than any other. In fact, a child spends close to 12 out of 24 hours – or half his childhood – in this one room. Since much of the other half of the child's life is out of doors, or at school where there is no contact with house dust, the problem centers largely on the bedroom.

The chief source of house dust is upholstered

furniture, mattresses, box springs, pillows, rugs, rug pads and stuffed toys. Kapok and cotton-linters, feathers, down and animal hairs are especially troublesome. The dust particles float in the air and are invisible, except when a shaft of ing of the mucous membrane. They may also cause skin eczema.

How To Prepare A Dust-Controlled Bedroom

1. The room should contain only one bed of metal or wood. A couch or sofa with attached legs will not do. If a second bed is in the room, it, too, must be prepared as will be described even though it is not occupied.

2. Remove all upholstered furniture, rugs, rug-pads, pillows, stuffed toys, window-drapes, and dust-catching ornaments. Remove all stored clothing, toys, packages, and other articles from the closet. The closet should contain only the patient's clothing in current use and should be as dust-free as the room.

3. Cover the mattress with a recommended encasing*, not an ordinary plastic one. If a box spring is used, although one is not necessary, it must have a similar encasing. Seal the zipper ends of the encasing with wide adhesive tape. A foam rubber mattress does not produce dust and so does not require encasing. Despite most salesmen's statements to the contrary, foam rubber box springs contain upholstering material in part and must be encased. You may also be told that foam rubber mattresses are not available without box springs. This is not so.

4. Close and then permanently seal all furnace pipe outlets in the room. Otherwise, the room will become filled with dust-laden air during the operation of the furnace.

5. Do not use comforters or quilts on the bed. Cotton, rayon or synthetic fiber blankets are best, but wool blankets are usually also tolerated. They may be used unless you are directed otherwise. Wool rugs, however, are not allowed, nor rug-pads, except those made of rubber. Cotton washable rugs may be used if kept clean. Instead of quilted bed pads, small folded cotton blankets may be used.

6. Pillows should be of foam rubber. Dacron or other synthetic fiber pillows may also be used. Do not use kapok, feather or down pillows.

7. Plain light curtains may be used at the window if kept dust-free. No drapes.

8. Move the remaining (un-upholstered) furniture to the center, or out of the room, in order to give it a thorough initial cleaning from top to bottom. Include the molding, lights, shelves, closets, etc. Keep the room dust-free with frequent cleanings and a weekly wiping down with an oiled or damp cloth.

9. Do not allow the patient to nap or sleep elsewhere unless the bed has been prepared as above. A couch or sofa cannot be encased and, therefore, is not permissible. If the patient is confined to bed by illness, do not bring in extra kapok or feather pillows. When he visits or travels, he should take his special pillow with him.

10. If a child plays in a room other than his bedroom, it, too, must be dust-free.

11. Since dogs and cats are among the most notorious causes of allergic troubles, the patient should not live in a home where they are kept. If not already allergic to these animals, their presence invites the child to become sensitive to them.

The improvement which follows attention to house dust in the bedroom can, if necessary, be increased by changes along similar lines in the living room and elsewhere. Feather or kapok pillows and old upholstered furniture are especially troublesome. The older they are, the more trouble they cause. Hair rug-pads are also a source of trouble.

Shredded foam rubber, or dacron fiber, or other synthetic fiber can be used to replace feathers or kapok in pillows. Rug pads can be dispensed with or rubber ones used. Woolen rugs or rugs made from other types of hair can be replaced by cotton, flax, rayon, or synthetic fiber rugs. Better yet, linoleum floor covering can be used.

The above precautions should be continued for many years even though symptoms are absent.

*Obtainable from Allergen-Proof Encasings, Inc., 4046 Superior Ave., Cleveland 3, Ohio, and other sources.

HYDATIDIFORM MOLE
A Report of Four Cases

By Robert C. Evans, M. D.
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THE INCIDENCE of hydatidiform mole is rare enough to warrant the reporting of all cases. According to Rubin and Novak,(1) the incidence is about 1:2,000 clinically and an estimated 1:25 subclinically. We at St. Joseph's Hospital in Phoenix, Ariz., have seen three clinical cases in the last 1½ years. These have occurred among about 7,500 deliveries seen during this same period, an incidence of about 1:2,500. A fourth case to be reported in this article was treated originally at another hospital, but was seen here for further treatment.

The presenting symptoms of this entity are usually a uterus which is growing more rapidly than one would expect with a normal pregnancy. This occurs with or without silent bleeding varying from spotting to gross hemorrhage. Later there may be the discharge of the typical grape like clusters of chorionic villi. Vomiting is more common and intense with the disease.

The etiology of this entity is not fully understood. It may be due to the failure of a union between embryonic and ectoembryonal vessels since these lesions are usually avascular(1). The pathogenesis seems to be underlined by disturbed hydrostatics taking place in the absence of the embryo, or in the presence of a macerated, nodular, or very stunted embryo(2).

This disease is feared because of its high incidence (39 per cent)(3) in the etiology of choriocarcinomas. The gross and miscroscopic examinations do not clearly indicate the prognosis of a mole, although, its potential of malignancy is approximately parallel to the degree of hyperplasia and anaplasia of the trophoblast. Choriocarcinoma following a mole is more common after 40 years of age.

There are several types or states of a mole. The most common, clinically recognized, is the benign type which occupies the uterine cavity and involves only the decidual lining. The next and probably more common but less recognized is the syncytial endometritis occurring in the residuum of trophoblastic cells. Then there are the cases of chorioadenoma destruens which is a trophoblastic overgrowth with penetration of villi into and through the uterine wall, parametrium and vagina, and finally choriocarcinoma.

The treatment of the disease is evacuation of the uterus. The incidence of severe hemorrhage is great enough not to warrant awaiting spontaneous abortion. Conservative measures such as IV pitocin drip, or quinine may be tried, but if these fail, dilatation and curettage or hysterotomy should be done depending on the size of the uterus. Great care must be exercised when using the curette since the extent of involvement of the uterine wall is not known and perforation is easy. The patient must then be followed to determine the level of chorionic gonadotropin in her blood. If after two months there is no more hemorrhage, there is normal uterine involution, and there is no longer a positive A-Z test, the danger may be considered over (although some believe it is safer to check these patients every month for six months). Should bleeding continue and/or the A-Z test remain positive, a cause must be found. This may require re-curettaging, as illustrated in one of the cases to be presented, hysterectomy, as illustrated by another case, or seeking the evidence of metastasis, as demonstrated by cases presented by Bardawil, Hertig, and Veldaro (4).

Case Reports

Case 1: Mrs. C. F. is a 22-year-old, white female, who was first seen at another hospital on June 11, 1956 at which time she gave a history of having had her last regular menstrual period in December 1955.

There followed episodes of intermittent bleeding which became continuous in April. Periods of crampy pain every two weeks occurred. Early in June 1956, she hemorrhaged severely and passed some grape-like material. At this time a diagnosis of hydatidiform mole was made. On July 6, 1956 a quantitative A-Z test was made and was reported as 113 international units, (normal for a non-pregnant female is considered to be between 50 and 400). The uterus was

emptied by dilatation and curettage on the date of diagnosis. Following the dilatation and curettage, she spotted occasionally and then began bleeding heavily again in the last week of July 1956. On July 31, she was admitted to this hospital. Pelvic examination revealed a bulky cervix. The body of the uterus was soft and antiverted, slightly enlarged and freely movable. Dilatation and curettage was done on Aug. 1. The uterus at this time measured 3½ inches deep and abundant masses of yellowish necrotic-appearing tissue were scraped from the cavity. There was very little bleeding. The pathological report stated, " . . . intermixed with small volume of endometrial material are masses of necrotic, partially hylanized and focally viable decidual tissue. A single chorionic villus which has undergone hydropic degeneration is identified." The patient was discharged from the hospital Aug. 20. On Sept. 4, she was again admitted to this hospital giving a history of having started to spot again a few days after her previous discharge. She began bleeding heavily again on Aug. 31, but it was not described as a normal period and occurred off and on. Dilatation and curettage was again carried out on Sept. 5. At this time the body of the uterus was slightly enlarged, globular, freely movable, and measured three inches in depth. The cervix was soft. The uterine cavity felt rough everywhere and several small fragments of degenerated decidual tissue were obtained. One piece had the gross appearance of a hydatidiform mole vesicle, or villus. There was again very little bleeding. The pathological report at this time stated, " . . . remnant of a hydatidiform mole with degenerating decidual tissue, trophoblastic elements, and prolific endometrium." The patient was discharged from the hospital on Sept. 6. She has been followed by one of the local specialists and has reported prolonged painless periods lasting five days and occurring every 30 to 31 days. She complains of painful ovulation and breast tenderness. She was last seen on Jan. 17, 1958, at which time a frog test for pregnancy was carried out and found to be positive. She had been trying to become pregnant for the last six months.

Menstrual History Normal

Case 2: Mrs. J. W. is a 24-year-old gravida one para zero, seen by us for the first time on Oct. 15, 1956. At this time she gave a normal menstrual history, her last normal menstrual period occurring in February 1956. At this time she was living in the eastern part of the United States and she sought the advice of a local specialist. Communication with him revealed that she was first seen on June 5, 1956 with the history of her last menstrual period occurring March 18, 1956. She had become married on March 25, 1956. She was seen with the symptoms of early pregnancy consisting of sore breasts, nausea and weight gain. The uterus was found to be about the size of a 12-week gestation, (slightly larger than the due date would indicate). Pregnancy tests on June 20, using serum and an African toad were reported to be negative. She was again seen June 14, complaining of some bleeding, and a repeat pregnancy test on the urine at a different lab was weakly positive. A missed abortion was mentioned as a possible explanation of the negative pregnancy test. The bleeding subsided and was replaced by a recurrent, brownish, foul-smelling discharge.

When seen by us, she complained of having cramps on and off almost constantly since June. She had been unable to feel her uterus contract during these pains. Physical examination on admission revealed the uterus to be enlarged to about 12 centimeters above the symphysis (approximately a five-month pregnancy). It was freely movable and non-tender. There was a brownish foul-smelling vaginal discharge. Admitting diagnosis was missed abortion. Consultation was made and the impression of the consulting physician was of a diagnosis of a missed abortion with consideration of a hydatidiform mole. He recommended induction with pitocin drip or hysterotomy.

Following the consultant's recommendation, IV pitocin (1 cc. in 1,000 cc. of 5 per cent dextrose in water) was started on Oct. 16. It was given at the rate of 20 to 60 drops per minute with no results and another 1 cc. of pitocin was added to the remaining 500 cc. of solution. This resulted in some contractions with a slight amount of bleeding, but no cervical dilatation. That night the patient was given 200 mgs. of stilbesterol and the next morning 2 cc. of pitocin in 1,000 cc. of 5 per cent dextrose and water were given at the rate of 60 drops per minute. Again some cramps occurred, but there was only little change in the cervix and only light bleeding.

With failure of induction, hysterotomy was de-

cided upon and carried out on Oct. 19. On opening the abdomen, the uterus was found to be elongated cylindrically and enlarged to a five-month pregnancy. Incision in the anterior wall of the uterus was made and the uterine cavity found to contain hydatidiform mole tissue. This was removed easily. It clung together markedly (this being unusual with this type of disease). The operation was relatively bloodless. The wall of the uterus was inspected closely, and no more tissue was found. There were no corpus luteum or thecal cysts found in the ovaries. The patient's postoperative course was complicated only by a bout of pneumonitis and patchy atelectasis. The pathologist reported that grossly the specimen appeared as a distorted placental disc, measuring 17 x 10 x 5 centimeters, and consisting of numerous grape-like structures ranging in size up to 1.5 centimeters. These were supported by a yellow-grey, firm tissue flecked with pink, and focal hemorrhage. Cross section revealed an amnionic cavity approximately 5 centimeters in diameter bordered by dirty yellow-grey tissue. Microscopic examination revealed polypoid chorionic villi, with markedly hydropic poor staining stroma which has in some areas progressed to liquefaction. There is an outer layer of Langhan's cells and, in some locations, groups of syncitial cells. The patient was discharged from the hospital on Oct. 28, 1956. She was seen by a local specialist and found to have normal pelvic findings on Jan. 28, 1957. The patient has not been seen since.

Hemmorrhage

Case 3: Mrs. L. G. is a 22-year-old, white female, gravida one para zero. She was first seen by me on March 17, 1957, giving a history of having had a last normal menstrual period on July 30, 1956. She stated that she could not have become pregnant later than August 1956. She was seen by another doctor in February 1957 who found the uterus enlarged, but not to the expected size. A pregnancy test at the time was positive. He considered a missed abortion. The patient had a brownish-red vaginal discharge since December 1957. She never felt fetal movement. Late in February 1958 she received an injection of estrogen and bled profusely. On my initial examination, the uterus was enlarged to about the size of a sixth-month pregnancy instead of the expected seven. X-rays of her abdomen revealed no evidence of fetal parts. Chorionic gonadotropin titer was done and reported as 357,000 international units. She complained of headache and high blood pressure and edema developed in the last week. The patient was admitted to the hospital on March 19 with vaginal bleeding estimated at 800 cc. On pelvic examination, the cervix admitted only one finger and was long and thick. The patient was transfused. It was believed best to do a hysterotomy which was then carried out. The uterus was found to be enlarged to the size of a sixth-month pregnancy and widened in the transverse diameter. The adnexa were found to be normal. A transverse incision was made in the uterus with removal of the grape-like mole tissue which fell apart as it was removed. The endometrium was curetted. The pathologist reported that the gross specimen consisted of a voluminous mass of grape-like structures measuring up to 3 centimeters in diameter. Scattered throughout the tissue were zones of condensed stroma, many of which were grossly necrotic. On microscopic examination there was considerable ischemic necrosis. Here and there were chronionic villi, which had undergone degeneration and which showed moderate, somewhat atypical trophoblastic activity. There was no suggestion of malignant change.

The patient had a normal postoperative course except for an unexplained febrile period lasting two days. A chorionic gonadotropin titer was repeated on April 3 and was found to be 155 international units. The patient was examined bimanually on April 10 and found to have a uterus about twice the normal size with normal adnexa. The patient returned to the East and letters from her state that she is well.

Enlarged Uterus

Case 4: Mrs. M. R. was first seen in the office of a local specialist on Nov. 26, 1956. Her last normal menstrual period occurred Sept. 26, 1956. She had spotted on Nov. 17, passing some clots and "tissue" on Nov. 22. The spotting stopped on the 25th, but she flowed heavily again on Nov. 26. She at this time passed a few clots and then stopped. When examined, the uterus was found to be enlarged to 12 centimeters above the symphysis. On Dec. 12, the uterus was found to be only 2 centimeters below the umbilicus and a hydatidiform mole was suspected. She was admitted to the hospital on Dec. 12, 1956 with a history of being a gravida four para two, and

signs and symptoms as previously mentioned. She had bleeding and cramps on Dec. 11 and early in the morning of the 12th passed several large clots. There was a notable increase in size of the uterus over the preceding two weeks. X-ray examination of the abdomen at this time revealed no evidence of fetal parts. Consultation was secured and the impression of the consultant was hydatidiform mole. He recommended hysterotomy with possible hysterectomy. On the afternoon of Dec. 12, the patient suddenly began bleeding, passing about 750 cc. of blood and blood clots. At this time the uterus was found to be about 2 centimeters above the umbilicus and transfusion was started. Hysterotomy was then carried out. The uterus at this time was found to be enlarged above the umbilicus and a mottled blue in color. There was a moderate amount of brown peritoneal fluid. An 8 centimeter incision was made in the anterior wall of the uterus and typical mole tissue removed. The endometrial cavity had a coarse appearance and was cleaned with finger curettage. Hemostasis was obtained and the patient returned to her room in good condition. Her postoperative course was normal except for a bout of unexplained fever lasting two days.

The pathologist reported that grossly the tissue appeared to be placental, characterized by a coarse, spongy consistency and friable throughout. Numerous hydatids ranging to 1 centimeter in maximum diameter were present. On microscopic examination, the tissue consisted of placental and decidual tissue with chorionic villi showing a double layer of trophoblastic cells. It was particularly avascular with marked hydropic degeneration. In addition there were small clumps and sheets of trophoblastic cells observed which exhibited considerable activity. The nuclei showed a wide range in size, some were hyperchromatic and an occasional multinucleated form was observed. Mytotic figures were occasionally foud but no atypical forms were identified. The impression was that of a hydatidiform mole with pronounced activity, and the pathologist commented that this was an active mole, with an invasive mole to be ruled out. There was not sufficient evidence at this time for a diagnosis of chorioepithelioma, and a close follow up was recommended. The patient was discharged from the hospital on Dec. 20. On Jan. 10, a pelvic examination revealed the uterus to be enlarged to that of a two to three month pregnancy, there was a dark lochia and a chorionic gonadotropin showed 45,000 international units. Accordingly the patient was again admitted to the hospital on Jan. 18, complaining that her breasts had become sore. The uterus was still enlarged and on D & C the cervix was found to be closed, with a thin, bloody discharge. It was easily dilated and scrapings revealed black appearing necrotic tissue obtained mostly from the posterior wall left cornu. Grayish tissue was obtained elsewhere. There was a moderate amount of bleeding. The pathologist reported at this time " . . .degenerating decidual tissue with trophoblastic elements." The patient was discharged then on Jan. 21. She was seen again in the specialist's office on Feb. 2 with a watery discharge and a chorionic gonadotropin titer of 1,808 international units. Because of this, the patient was again admitted on Feb. 25 and hysterectomy performed. The uterus was found to be three to four times normal size, had a smooth exterior surface, and was removed with the tubes without difficulty. The pathologist now reported, grossly, a uterus measuring 14 x 10 x 18 centimeters, and weighing 235 grams. There was a friable purple gray polyp in the fundus. Frozen section diagnosis of active trophoblastic proliferation was made. There was a circumscribed mass with a hemorrhagic surface which on cross section measured 2.5 centimeters in diameter. The areas appeared to be well circumscribed and did not penetrate to the serosa. The miscroscopic examination revealed isolated groups of cells of chroionic and syncitial type with areas of marked necrosis. The cells exhibited pleomorphism, large vesicular nuclei and pale staining vesicular cytoplasm. In other areas, the syncitial masses are composed of hyperchromic nuculear material with fine limiting membranes. These cytological manifestations of chorionic activity are associated closely with myometrial blood vessels and actually appeared to have lined these vessels in some areas. In none of the areas do the cells form large invasive sheets of tissue. In discussing the case, the pathologist said that the histopathology is indicative of an active destructive type of growth of chorionic and syncitial cells. The actual classification was difficult and depends largely on the future course of the patient. The fact that the chorionic cells line vascular spaces and appear to be capable of disseminating into vascular

spaces is suggestive of malignancy. However, this was tentatively classified as a chorioadenoma destruens, chorioepithelioma not to be excluded at this time. The patient was discharged from the hospital on March 3. She was seen in the specialist's office on March 19 without any bleeding. On April 18, a chorionic gonadotropin level of 310 international units was found. On Aug. 12, 1957 the patient was examined and her pelvis found to be normal.

Discussion

The occurrence of these four cases in a year and a half at this hospital is somewhat unique in that they demonstrate three types of hydatidiform mole and three forms of treatment. In only one of the three cases first seen at this hospital was the uterus found larger than the expected gestational size. In the other two cases, the uterus was believed to be smaller than would be expected. Three of the four patients presented themselves with symptoms of bleeding, and only the patient who was not first seen at this hospital gave a history of passing the typical grape-like clusters of material. The first case represents, I believe, a case of syncitial endometritis, which is best treated by repeated curettage and close follow up. The second case represents the hydropic degeneration of a placenta with a uterine size large enough to require hysterotomy. The third case is that of a true hydatidiform mole, again with a uterine size large enough to require a hysterotomy. And the fourth case represents a chorioadenoma destruens with penetration into the uterine wall and requiring hysterectomy for ultimate cure.

Summary

1. A short discussion of hydatidiform mole is presented.

2. Four cases of varying types of hydatidiform mole are presented.

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Editorial Page

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CONTRIBUTORS

The Editor sincerely solicits contributions of scientific articles for publication in ARIZONA MEDICINE. All such contributions are greatly appreciated. All will be given equal consideration.

Certain general rules must be followed, however, and the Editor therefore respectfully submits the following suggestions to authors and contributors:

1. Follow the general rules of good English, especially with regard to construction, diction, spelling, and punctuation.
2. Be guided by the general rules of medical writing as followed by the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.
3. Be brief, even while being thorough and complete. Avoid unnecessary words. Try to limit the article to 1500 words.
4. Read and re-read the manuscript several times to correct it, especially for spelling and punctuation.
5. Manuscripts should be typewritten, double spaced, and the original and a carbon copy submitted.
6. Articles for publication should have been read before a controversial body, e.g., a hospital staff meeting, or a county medical society meeting.
7. Exclusive Publication—Articles are accepted for publication on condition that they are contributed solely to this Journal. Ordinarily contributors will be notifed within 60 days if a manuscript is accepted for publication. Every effort will be made to return unused manuscripts.
8. Illustrations — Ordinarily publication of 2 or 3 illustrations accompanying an article will be paid for by Arizona Medicine. Any number beyond this will have to be paid for by the author.
9. Reprints — Reprints must be paid for by the author at established standard rates.

The Editor is always ready, willing, and happy to help in any way possible.

(The Opinions expressed in original contributions do not necessarily express the opinion of the Editorial Board.)

AUTOCRACY
GROUP PRACTICE
THIRD-PARTY-PRACTICE

DR. GUNNAR Gundersen, president of the American Medical Association, has recently stated that he thinks group practice of medicine "gives patients more for their money." He further states that these groups will function more effeciently and have greater stability if they are "– run by a small autocracy" – than if they are "– run along democratic lines." After enunciating such an autocratic philosophy, he concludes by saying, "– I'll do all I can to preserve the professional freedom."

Webster defines *autocracy* as: 1. Independent; of self derived power; absolute supremacy. 2. Uncontrolled authority of an autocrat; supreme government by an individual. Autocratic denotes; arbitrary, absolute, despotic, tyrannical or tyranous.

We, as individuals, and as organized medicine, have fought hard to protect the American public from third party practice of medicine, because it is bad. Third party practice whether it be run by the federal government, private enterprise, labor groups, Kaiser, or medical groups, will not best serve medical needs of our people. One of the greatest evils of such control of medicine is that it would, in too many instances, fall into the hands of autocrats. These autocrats would then appease the whims of the few, rather than pay due regard to the multi-faceted needs of the many.

Dr. Gunderson proposes group practice under autocratic control, also, to preserve professional freedom. Does he mean the freedom of the medical profession as an autocratic, controlled unit, or the freedom of the individual doctors and their individual patients? Or does he mean to try to "– stiffen the resistence – to government interference," with another type of autocratic third party practice of medicine?

There are groups practicing medicine today which are threatening to become nation-wide in scope. How much difference will there be, in the near future, between the various groups whether or not they are run by autocratic M.D.s or by lay autocrats? An autocrat will be an auto-

crat in mode of operation irrespective of his point of origin.

The peoples of these United States have enjoyed personal freedom and prospered, as in no other nation, because individual freedom has been the basic concept as contrasted to autocratic reign.

Dr. Gundersen's tenets of autocratic rather than democratic control of any group must not become incorporated into the principles of the American Medical Association.

L.B.S.

P. S. The attitude of Dr. Gundersen reported in Medical Economics is quite in contrast to those expressed in his prepared inaugural address in San Francisco. In the latter he states, "In medicine, as all other phases of life, we are rediscovering that philosophy is just as important as technology, that human personality cannot be subordinated to crisp efficiency." Whereas, in the first discussion he chose to have physicians "– give up some of their individuality and to learn to work as members of a team." This team, he states, is best run by a small autocracy.

L.B.S.

THE NATIONAL FOUNDATION

THE NATIONAL Foundation (formerly the National Foundation for Infantile Paralysis) caused quite a stir across the nation when it decided to enter the field of arthritis and several other disease groups. Voices have been raised, and there is considerable criticism of the National Foundation for spreading out and "intruding" in other fields. This reaction is only natural and should be expected among the loyal organizers and workers of the other groups that might be swallowed up and forgotten.

Two basic questions that should be considered are, first, "Is the National Foundation right in its expansion, and deserving of continued support?" Secondly, "What should be the attitudes of the foundations or other disease groups being invaded or included?"

In an attempt to answer the first question, only time will tell or show the wisdom of the expansion of the National Foundation. Here is a strong organization of 3,100 chapters, with dynamic leadership, successful in achieving a great medical goal and a capacity to raise large sums of money,– $490 million in 20 years. In its expansion there might be a danger of increase in the loss of funds through cost of administration. There is also the possibility of loss of appeal to those people who give and work on an emotional basis for a single disease. On the other hand, in defense of this expansion, one must honestly ask the question whether or not such a powerful organization rendering service to mankind be allowed to die. There is much to be said in favor of the public support for research and charity through private contributions.

The Arthritis and Rheumatism Foundation, after most careful study of the situation during the past year, has voted overwhelmingly by chapters and committees against a merger with the National Foundation. During the past year, the chairman of the Arthritis and Rheumatism Foundation, along with some of the members, thought a merger with the National Foundation might give considerable impetus to the work in the arthritis and rheumatic disease field. On further scrutiny, several factors of importance against such a merger became evident. First, the National Foundation will not be dedicated to arthritis alone, but will spread its interest and funds among at least five different fields of health. The word "arthritis" would not be included in the name of the new foundation. The policies of operation of the two organizations, "The National Foundation" and "The Arthritis and Rheumatism Foundation," are quite different in that the 53 chapters of the Arthritis and Rheumatism Foundation are semi-autonomous, are incorporated under their own state laws, formulate and support their own medical programs, fix their own campaign goals, and are permitted to participate in local united fund or federated drives. None of these prerogatives are extended by the National Foundation to its 3,100 chapters. In addition to the foregoing, there were major legal complications in resolving the Arthritis and Rheumatism Foundation.

The magnitude of the arthritis and rheumatism problem, the greatest of all the disabling diseases, justifies all the help it may receive from any source. The National Foundation should be commended for recognizing the need in this field of arthritis and rheumatism, and its assistance, whatever it can offer, should be wel-

comed; but the National Foundation should not demand in return for its assistance exclusive command over all the aspects of the fight against rheumatism. D.F.H.

SECRETARY'S LETTER TO THE MEMBERS

TOO FREQUENTLY our committees or their chairmen have expressed prepared opinions which have not been analyzed by the officers, or the council of the Arizona Medical Association. There have been instances in which the chairman of a committee or the chairman of a sub-committee has released statements through our office, which have not even been acted upon by the respective committee. Some of these releases have been accepted by the press and others as representing the policies of our association. These unapproved statements have not always been factual, and hence, become sources of embarrassment.

The activities of this association have, of necessity, become broadened, making our coverage more complex. The volume of work required of our central office has become tremendous.

In order to "render service to all," it has been the custom of the central office to comply with all work requests, that is, in the preparation and release of materials. For politeness' sake, we have not been too diligent in weighing the necessity of preparing the work, or determining the implications of the subjects processed.

It is necessary to reduce the work load and to better control the association's releases, which may be misconstrued as policies of our medical association — hence, from now on, all requests for services will be passed upon by your elected officers prior to the processing and/or distribution.

LESLIE B. SMITH

Abstracts

HYPERCALCEMIA-NEOPLASTIC DISEASE

Cortisone in the Treatment of Hypercalcemia in Neoplastic Disease

Myers, W. P. Laird (Metabolic and Renal Studies Section, Div. of Clin. Chemotherapy, Sloan-Kettering Inst. for Cancer Res.; the Chemotherapy Serv., Mem. Center for Cancer and Allied Dis.; and the Dept. of Med., Cornell U. Med. Coll., New York, N. Y.) Cancer 11:83-88 (January-February) 1958.

THE FINDINGS reported here indicate that cortisone may prove useful in controlling hypercalcemia of neoplastic origin. The mechanisms whereby cortisone may induce a reversal of hypercalcemia in malignant tumors are not completely understood. Inhibition of the rate of growth of the tumor seemed to be responsible for the reversals of hypercalcemia and hypercalciuria in some patients, but other possible mechanisms, although not clearly defined, should not be overlooked.

During this study, 11 patients with hypercalcemia and hypercalciuria secondary to widespread cancer were given cortisone (10 patients) or prednisone (1 patient) in phramacological doses for from six to 54 days; treatment was initiated in four of the cortisone-treated cases with hydrocortisone (100 to 200 mg/day given intravenously for one or two days). The initial doses of cortisone ranged between 200 and 400 mg/day, and the doses were then tapered, depending upon the response of the individual patient. The prednisone, which was given for 10 days, was initiated with a dose of 100 mg/day, which was then tapered to 5 mg/day. The types of neoplasms treated included: Carcinomas of the kidney and breast, metastatic adenocarcinoma of undetermined primary origin, lymphosarcoma, multiple myeloma, and rhabdomyosarcoma of testicular origin. All but one of the patients had bone metastases demonstrable roentgenographically, and all of the patients were maintained on low calcium diets (about 200 mg/day).

The treatment induced a complete reversal of the hypercalcemia and hypercalciuria in five of the patients, caused a partial reversal in two cases, and elicited no response in five of the patients, caused a partial reversal in two cases, and elicited no response in four patients. A response usually occurred within two weeks, and longer periods of treatment were usually ineffective if

changes in the calcium levels in the blood and urine had not occurred within the two weeks.

Prednisone, in the one instance it was used, proved to be as effective as cortisone.

(Upjohn Abstract)

Editor's note: How refreshing to read the last sentence of the first paragraph — even in an abstract! — of the reports of the effectiveness of various steroids in ameliorating hypercalcemia in skeletal disease, since neoplasms are abundant. (See J. Clin. Endocrin. & Metab., Vol. 18, No. 8, August 1958, pgs 70-71 for a partial bibliography).

MANAGEMENT OF DRUG WITHDRAWAL

Medical Management of Acute Withdrawal Symptoms in Juvenile Male and Female Heroin Addicts; A Preliminary Report.

Landau, Raphael (Riverside Hosp., Med. Div., New York City) Illinois Med. J. 113: 13-15 (January) 1958.

INE JUVENILE patients with addiction to heroin (diacetylmorphine) were treated with a combination of sex hormones and vitamins, and in all cases there was a marked and rapidly favorable effect on the abstinence syndrome. The acute withdrawal symptoms decreased with unusual rapidity, and late withdrawal symptoms were checked. When the combination of hormone with B vitamins was followed by an intravenous injection of vitamin C, craving for heroin was abolished for a period of one hour up to two days. Preliminary studies indicate that this method of treatment may also be valuable in treating chronic alcoholism.

Two representative cases are reported. A 19-year-old colored male who had been addicted to the use of intravenous heroin for at least three years, had acute and severe withdrawal symptoms that did not respond satisfactorily to two days of treatment with methadon (5 mg. every six hours) and chloral hydrate (at bedtime). He was then given intramuscular injections of 200 mg. of testosterone propionate and of a mixture containing 2 ml. of crude liver extract and vitamin B complex and an intravenous injection of 1,000 mg. of vitamin C. Seven minutes after the last injection, all acute withdrawal symptoms were relieved and the severe abstinence syndrome disappeared. The patient felt well throughout the day, slept well that night with the use of chloral hydrate and one dose of methadon, and was free of symptoms for the next eight days without receiving any further medication. Late withdrawal symptoms set in eight days after the above treatment, and he could not sleep and felt sluggish. He retained his craving for heroin except for the first few hours after the hormone and the vitamins were administered.

The second patient was an 18-year-old colored female addicted to heroin sniffing for four years and to intravenous heroin for at least one year. She had acute withdrawal symptoms, namely, generalized weakness, tiredness, and lack of interest. Upper respiratory symptoms were observed. All of these symptoms were still present three months after readmission, at which time she was given 25 mg. of testosterone propionate, 0.66 mg. of crystalline estradiol benzoate, and vitamin B intramuscularly. Although immediate relief was not noted, the upper respiratory symptoms disappeared within three days, the patient felt well, appetite improved, and sexual desire returned to normal. This treatment did not affect craving for heroin. Recurrence of the late withdrawal symptoms was not noted up to four weeks after the hormone-vitamin combination was given.

This combination was tried in four patients suffering from chronic alcoholism, and they have abstained from alcohol for 26 days up to 16 months.

(Upjohn Abstract)

Editor's note: That last single sentence paragraph! What combination, please?

Topics of Current Medical Interest

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION OF THE BOARD OF REGENTS OF THE UNIVERSITY AND STATE COLLEGES OF ARIZONA

YOU WILL RECALL that at our meeting of May 12 you appointed a committee consisting of Regents Morris, Bradford, yourself and Babbitt to investigate the possibility and desirability of establishing a medical school in Arizona.

Since that time, your committee has availed itself of a great volume of information on the subject. This information includes reports from qualified authorities and much information from other states — both those that have schools and those that do not. Of great interest in particular are states such as Florida, which has only recently established a school after years of consideration of the problem, and New Mexico, which decided against a school after having considered the possibility very seriously.

Of very great value to the committee was a hearing held July 11 in the Regents Room at Arizona State College at Flagstaff. We are sure that a majority of the most interested and best qualified authorities in the state on the subject were present and testified. Attached hereto and made a part of this report is a transcript of that hearing.

The first question that the committee concerned itself with was — need. Is there a strong and immediate need for a medical school in our state, or is it something that may be desirable but is not immediately pressing?

During the hearing there was not anyone present who testified as to the general statewide shortage of doctors in Arizona. Even though there may be a shortage in some rural areas, it is difficult to believe that an increase of a few points of our doctor-population ratio would correct this situation.

While it is true that Arizona is somewhat below the national average in doctors per 100,000 population, still there are 19 states that have a lower ratio than Arizona in spite of the fact that we have a large Indian reservation population. Furthermore, there is a surprising lack of evidence that the existence of a medical school in any state's boundaries results in a higher doctor ratio. This seems to be particularly true of two-year schools. There are only three two-year schools in the United States as compared to 85 four-year schools, so the figures may not be too meaningful; but it is surprising to note that in two of the three states having two-year schools, their doctor ratio is much lower than Arizona's (Arizona 104 vs. North Dakota 77 and South Dakota 79).

These low ratios would undoubtedly also prevail if those two states did not have medical schools; however, there is an interesting possibility that Arizona might actually have less doctors practicing if it had a medical school than it would have without one. At the present time, our students have available to them the benefits of Arizona's participation in the Western Interstate Compact for Higher Education (WICHE). By law, the participating students are required to return to Arizona to practice for as many years as they have benefited from the WICHE program or be penalized financially very substantially. This requirement would undoubtedly not be exacted of students of our own medical school.

Should a serious shortage of doctors ever occur in Arizona, public opinion would undoubtedly force a change in our doctor licensing requirements in the form of greater reciprocity with other states and a change in our basic science requirement. We are sure this would bring Arizona immediate and ample relief.

Another major factor as regards the need of a medical school in Arizona is the question of the cost of a medical education to an Arizona student. There has been an assumption on the part of some persons that the establishment of a school would automatically mean a free medical education for our students. This is not the case.

At the present time, under the WICHE program, a student is required to pay in-state fees to whatever out-of-state institution he attends. If Arizona had a medical school, this situation would be the same — he would have to pay to Arizona the in-state fees. The matter of a student living out of state while at school is admittedly costly, but any Arizona student who did not live within easy commuting distance of whichever Arizona community should be chosen

as a school location, would also be faced with the expense of living away from home.

WICHE and Money

Still a further argument as to the need for a medical school in Arizona at this time is the feeling by some persons that WICHE will not have enough openings in the compact states having medical schools to accommodate all of the qualified Arizona applicants. This situation may well be upon us eventually, but the committee did not receive concrete evidence that it is here yet or will be for some years. It is a situation that must be watched, but it does not appear that a great number of Arizona students will find themselves unable to benefit under the WICHE program without the state having ample time to remedy the situation by other means.

A means used in some states that do not have a medical school is the establishment of state scholarships to needy students. This is particularly effective because most states having schools tend to favor the students of states not having medical schools.

The committee feels that, in addition to "need," the other major consideration as regards the establishment of a medical school in Arizona is the state's ability to stand the financial impact of a school.

At the committee hearing at Flagstaff, no one present testified that the state is now financially able to undertake the establishment of a four-year school. The capital expenditure required for a four-year institution was variously estimated at from $10-$30 million and the operating costs at around $1 million a year. These figures are in general agreement with those received from other sources.

The committee agrees with the testimony at the hearing that the establishment of a four-year medical school in Arizona is not feasible at this time.

Probably the most generally mentioned figure as to the capital cost for a two-year school was $3 million-$4 million and an operating cost of $300,000 to $400,000 per year.

In considering the advisability of the state spending such a sum, the committee believes that the current needs of higher education in the state should come first and that the financial demands of even a two-year medical school should definitely not be at the expense of our current program.

To make clear the position of our institutions of higher learning as regards current financial needs is important. In the year 1948-49, the total operating budget for our three institutions was $5,033,286. The year 1957-58 required a budget of $13,092,100, and the budget to be presented to the forthcoming legislature may well be several million dollars higher than this latter figure. During the same 10-year period, total enrollments rose from 9,661 to 16,786. It seems probable that even this rate of growth may accelerate. In addition, the three institutions spent $32,168,900 for capital requirements from 1946 to date and there is no end in sight for these demands. We are currently facing capital demands that will probably reach $20 million for our existing programs.

While it is the legislature's problem, we are, however, also mindful of the mounting critical demands of our other state institutions, such as the state hospital, state prison, Fort Grant, children's colony, and the school for the deaf and blind.

If the expenditure of these vast sums had brought our higher educational system up to an average position, the situation would not be so serious, but this is not the case. At the University of Arizona, professors, during the 1957-58 academic year, were paid about $1,900 less than the average professor's salary of public supported universities of the size of our university.

Of the land grant institutions of the country, our university ranked last in the amount of total educational and general income per student enrolled. At the state college at Tempe, the situation is no better. In spite of the Regent's best efforts to reduce it, the faculty student ratio has been high to the point of endangering accreditation. In salaries its scale is even lower than the university's. Furthermore, our institutions have not had the chance to consolidate the vast increases in schools, courses, majors and degrees that the Regents have showered on them these past few years.

It is the opinion of the committee that no further major expansion in other fields should be undertaken by any of our institutions until this consolidation of their financial positions has taken place.

It is interesting to note that West Virginia, ranking as it does in both population and wealth, found it necessary to impose a sales tax on soft

drinks to finance its medical school.

Location and Program

Apart from the money consideration, the committee takes cognizance of the fact that there is a substantial difference of opinion as to the future place of two-year medical schools. Proponents claim that they fill a very definite need in providing instruction for the first two years of so-called basic science instruction. They further point out that because there are fewer students in the upper classes of four-year schools, the two-year schools, by providing additional upperclassmen, can balance out the class enrollments of the four-year schools.

Opponents point to the tendency by some schools to limit the number of transfer students; also, they maintain that the average or below average student who has finished a two-year school might well incur difficulty transferring to a four-year school.

A more serious claim is that medical education is changing rapidly from a situation where two years were devoted to the basic sciences and the next two years to clinical study, to a situation where clinical training is incorporated in a student's curriculum from the day he enters medical school. Under this latter situation, hospital and patient facilities would have to be available to all students. This we believe would involve either a school hospital or a working relationship with a hospital that would involve school control of the hospital staff and a contract with the hospital for the use of patients for medical student purposes.

None of the members of your committee have training to qualify themselves as experts in making technical decisions with regard to those problems. This points to the desirability of having an out-of-state authoritative group or body make a study of all facets of our problem. We believe that such a body might logically be the Association of American Medical Schools.

Once Arizona does decide to embark on some type of medical school, there can be no retreat. There can be no continuing modest program or any program that will be largely dependent upon private gifts. The committee is most grateful for the offer of several generous grants, but we feel that it would be imprudent to set up a program that would require private donations to support more than a minor part of the cost of initiating and continuing any medical program. We cannot afford to give our medical students a mediocre, inexpensive education. Millions of dollars of state funds will be required for any Arizona program.

A further problem that has come to the attention of the committee is the selection of a site for a school. The university at Tucson feels that it should have the medical school when one is established because of its extensive experience in teaching some of the basic sciences and closely related sciences required of a medical education. The state college at Tempe feels that it should be the location for the school because of its proximity to the state's center of population and also because it has been offered some very generous money grants.

The committee does not feel that any of these claims are in themselves conclusive and that here again a well qualified out-of-state body or group should go into every phase of the desirability of one location as against another.

Florida was successful in obtaining a grant of $96,500 from the Commonwealth Fund of New York to make a study of the situation in that state before it established a school. Arizona may well be able to obtain money from this or other funds. Certainly there is not such haste involved as to penalize us for trying. A small amount of time and money invested now in an authoritative report, we are sure, would pay large dividends.

Summary

The following is a summary of our conclusions:

1. There is not a serious statewide shortage of doctors in Arizona.

2. The committee does not feel that there is an urgent and immediate need for a medical school in Arizona.

3. The committee does feel that Arizona medical students have a satisfactory opportunity to obtain a good medical education at well established universities at moderate cost through the provisions of WICHE – particularly since these provisions were liberalized by the last legislature.

4. The committee feels that it is out of the question to establish a four-year medical school in Arizona now or in the near future because of the tremendous expense involved.

5. The committee feels that the state should not undertake the cost of a two-year medical

school at the expense of other higher educational fields now existing in Arizona.

6. The committee feels that before a two-year medical school is started in Arizona, the educational value of such a school be evaluated by an out-of-state authoritative group or body. We believe that the current trend to incorporate clinical training in the first two years would justify this recommendation. Also, the very definite minority of their existing numbers – three out of 88 medical schools – leads the committee to question their educational standing.

Respectfully submitted,

/s/ John G. Babbitt

JOHN G. BABBITT, Chairman,
Medical School Committee

of the Board of Regents of the
University and State Colleges

Sept. 6, 1958

Funds For Study

This report by the committee on medical education was accepted by the Board of Regents. The board also adopted a resolution authorizing Dr. J. Byron McCormick, adviser to the board, to pursue the possibility of obtaining funds to be used by the board to investigate the necessity and desirability of establishing a medical school in Arizona, and to inquire as to what body might be considered to be the most authoritative and effective in making a thorough study of the problem. Dr. McCormick will report back to the Board of Regents.

A CRITICAL LOOK AT MEDICAL EDUCATION IN THE UNITED STATES WITH COMMENTS ON THE ROLE OF THE "SPECIALTY BOARDS"*

By Russell Meyers, M.D., F.A.C.S.

AN ECLECTIC view of medical education makes it apparent that the education of a physician begins early in the preschool period and continues throughout all the years of his practice. Beyond the internship his education may or may not include a residency, fellowship, and formal courses of postgraduate study; but it is, in any case, certain to include the widening of experience and maturing of judgment engendered by daily practice, the reading of medical literature, frequent contacts and consultations with fellow practitioners, and attendance at hospital rounds, staff, and society meetings. This is, in essence, a deterministic concept, and its adoption carries important heuristic implications for what follows in this article, not the least of which is that any serious effort to improve the training of physicians must contemplate going well beyond the content and form of current-day premedical, medical, paramedical, and postgraduate programs and penetrating boldly into general education and the broad sociopoliticoeconomic milieu in which the latter is set (1).

Let us preface our inquiry into medical education in the United States by recalling the traditional ideals that have for many centuries constituted the *vade mecum* of the practitioner of Western medicine, viz., the preservation of the patient's life for as long as possible; the achievement of optimal function in health and disease; and the giving of comfort and assurance to those who stand in sorrow and pain. These ideals, often loosely referred to as the "philosophy" of medicine, subtend medical education no less than the actual practice of the art for medical education manifestly aims to produce practitioners capable of effectively pursuing these goals.

Our difficulties as teachers of medicine and allied subjects develop as soon as we attempt to translate these laudable general aims into particulars. Mindful, as we are, of the ever present necessities of economizing time, energy, money, and available facilities, we see that virtually all our problems in pedagogy revolve around two questions: (a) Just what educative devices shall we employ in the effort to fashion practitioners capable of pursuing the stated goals? and (b) How shall we satisfy ourselves that the devices adopted do constitute "the best" pedagogy under the prevailing circumstances?

In contemplation of the numerous present-day endeavors to deal with these questions, certain recurring errors of omission and commission become apparent to the detached observer. It is no exaggeration to say that in the course of a single year the sensitive critic, observing the verbal and non-verbal behavior of his students, his colleagues, and himself, can collect hundreds of "horrible examples" – the consequences of defections in the exercise of scientific method and established principles of general education. The limited time at our disposal precludes the citation *in extenso* of such documented episodes (1) as might render the present essay convincing to the more incredulous among us. Fortunately, many readers will be able, upon review of their own experiences, readily to furnish their own examples. (To those teachers barren of such experiences, the rest of us offer warmest congratulations and express the wish that their good fortune may long continue!)

But the mere collection of incidents that thus exemplify departures from sound educational procedures is not likely to advance our cause very much. At best, such might be counted upon to suggest specific measures to be adopted for the recurrences of specific incidents. What we might more profitably address ourselves to is the identification of the *principles they exhibit in common* – principles which, being honored or dishonored, have inevitable consequences for good or ill in our day-by-day activity. To this end, the writer proposes to categorize the more obvious departures in principle, as he sees them; to draw inferences as to their more conspicuous effects; and, where possible, to suggest measures looking toward their emendation. Eight such categories have been set up, among which the reader will no doubt be able to discern certain overlapping features: (1) unrealistic concepts on the part of teachers and administrators re-

*Portion of a paper entitled "The Search for Better Ways: A Critical Look at Medical Education," presented at the 52nd annual Congress on Medical Education and Licensure of the American Medical Association, Chicago, Ill., Feb. 13, 1956.

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The author is chairman of the Division of Neurosurgery, State University of Iowa Hospitals, Iowa City, Iowa.

garding the motivation of premedical and medical students; (2) failure to exercise scientific method wherever and whenever applicable; (3) unfamiliarity with the principles of the psychology of learning, communication and information theory, general semantics, and group dynamics; (4) the naive acceptance and exercise of certain inept "guiding principles" of education; (5) inordinate faith in committee actions; (6) untoward effects on "correlative teaching" engendered by problems of "pecking order" among the faculty; (7) failure deliberately to encourage the doubting and inquiring attitude and to foster creativity among students; and (8) the inept character of current "experiments" in medical education.

To deal with each of these as they deserve would require far more space than lies at our command. For this reason, the present paper will be limited to the issues subsumed by the last-listed category — "the inept character of current 'experiments' in medical education."

Until quite recently and, for that matter, up to the present time in many medical schools, curriculum committees have been largely pre-occupied with (a) the most advantageous sequential arrangement of the various "subjects" considered essential to an "adequate" medical education and (b) the allotment of the "properly proportionate" number of hours to the several departments charged with the responsibility of teaching the conventional subjects of the medical curriculum. Viewed in broad perspective, such endeavors, while not altogether fatuous and certainly not wholly dispensable, appear to constitute relatively trivial problems as compared with those that await serious attention. Within recent years, however, owing to a growing awareness of the need to improve medical education, curriculum committees and administrators at a number of progressively oriented schools have entered upon a phase of activity which they have chosen to call "experimental research" in medical education. In general, these projects may be said to aim at the following:

1. Effecting a "correlation" or "integration" of subjects.

2. Developing "responsibility" in the student.

3. Employing extramural facilities in one or more of the following forms as part of the effort to minimize teaching by lecture and precept and to maximize "learning by experiencing."

(a) Partial return to the general practitioner-preceptor system.

(b) Domiciliary care of the patient (following clinical and hospital care).

(c) Regional hospital-medical-school program.

(d) Family health adviser program (emphasizing preventive as well as therapeutic advice on all matters relative to health, including socio-economic and psychologic issues).

4. Developing a "patient-oriented," as contrasted with the conventional "physician-oriented," teaching institution (i.e., utilizing the university-at-large in patient care).

5. Training medical teachers in general and special peadagogic principles.

6. Determining the most effective distribution of teaching exercises assigned to part-time and full-time teachers.

These endeavors, stemming from hypothetic postulates, have been characterized by much busy activity, by enlistment of the moral and financial support of several philanthropic foundations and governmental agencies, and by a considerable amount of publicity.

Manifestly, such "experiments" should not be regarded as ends in themselves but as potential means to an end, namely, that of achieving improvement or progress in the production of well-qualified physicians. But a serious difficulty inherent in all experiments thus far instituted is encountered as soon as the inquirer attempts to break through the vague concepts of "improvement" and "progress" to reach a clear delineation of the *particulars* encompassed by the terms and of the *means* by which it is hoped they may be reached. A similar comment holds with regard to the oft and lightly used term "well-qualified physician."

It will perhaps be readily acknowledged at the outset that *changes per se* in the curriculum provide no guaranty that the medical schools will produce physicians better able than their predecessors to implement the traditional ideals of medical practice. A "felt need" (Dewey) for improving medical practice now exists — and this is certainly a necessary precondition of achieving "progress"; but what experimenters have not yet done is to bring the details of the felt need into focus so that their inquiries may be prosecuted with a reasonable expectation of ultimately reaching positive or recognizably negative results.

Conspicuously lacking in the various "experiments" in medical education currently in process are the following prerequisites of rewarding investigation:

1. Unambiguous statements, particular as well as general, of the conceptualized *desirable state of affairs.*

2. A clear delineation of *the present state of affairs,* identifying especially those respects in which the present appears to fall short of the desirable state.

3. The adoption, however tentative, of self-consistent *hypotheses and implementing devices* by which a movement from the present to the desirable state of affairs may be accomplished.

4. The possession of *a means of measurement* by which it may be determined that the movement intended has or has not been effected (and, if so, how much), so that the investigator may in time decide what needs further to be done to approximate more closely the desirable state of affairs.

In brief, experimenters in medical education appear thus far to have been mainly "solution-centered" rather than "problem-centered," in that they have not yet stipulated precisely what is meant by "a good practitioner"; have developed no yardstick(s) for measuring whether or not this goal has been, or is being, reached; have arranged no "extensional bargains" among themselves by which their data may lead to the resolution of the basic issues in the foreseeable future; and have conspicuously failed to observe the necessities for *control* as well as *experimental groups* and for relatively *unbiased evaluators* charged with the responsible task of scrutinizing the data and reporting the results.

In any ordinary inquiry, such omissions would be gravely deplored, especially if, as in the matter under discussion, it appeared at all feasible to meet the basic conditions of sound experimental procedure. Far from having come to grips with the problem of experimental design, it almost seems that we have unconsciously contrived that we should experience no need to give an ultimate account to anyone – least of all ourselves – regarding students who, in consequence of the exercise of our arbitrarily adopted criteria and supposedly enlightened programs, have failed to "make the grade" and have thus been eliminated from medical practice. Equally important, we possess no means by which reliable predictions can possible be reached regarding the effectiveness of recommended courses of instruction for actually improving the performance of the physicians *in his community.* A single pilot inquiry in this direction has recently been conducted in North Carolina by Dr. Osler Peterson (2), but beyond this commendable effort, our current *modus operandi* does not promise to yield us, now or in the future, the solid knowledge we need and seemingly earnestly seek. In view of this melancholy circumstance, our more enlightened "experiments" in medical education should more accurately be described as *innovations* and complicated ways of exercising intuition than as scientific research.

Surely, if any one course of training is ever to be recommended as "better" than another of the past or present, it will be because the data accumulated under rigorously controlled conditions unequivocally reveal that, other variables being constant, a high correlation exists between the implementation of that course (with all its inherent predictions) and the recognizable development of "better" physicians. This statement is but a basic rubric of epistemology. In our professional pursuits other than pedagogic (relative to which our properly cautiously phrased conclusions often affect human welfare to but a negligible degree) we are content with nothing less than the faithful exercise of rigorous criteria. The price of serious departure from them is high and includes the possibility of loss of professional esteem and status. Why, then, should we be less insistent upon their exercise in so humanly vibrant and far-reaching an issue as medical education?

How far we are as yet removed from a demonstration of the *predictive capacity* of our present criteria and prescribed courses of training, orthodox and novel, can be appreciated by contemplating the circumstances that obtain in regard to the minimal requirements of (a) the premedical course; (b) the medical course; and (c) courses of postgraduate training leading to certification by the American "specialty" boards.

The Premedical Course

Given that a candidate for admission to medical study obtains credit for the minimal hours stipulated by state law, organized medicine, and/or the medical college itself in respect of biology, physics, chemistry, social science, English, and foreign language, the decision to accept

or reject him is in most colleges reached in consideration of the following measures of evaluation: (a) biographical material, (b) college grades *general* grade point average and *science* grade point average), (c) nature of collegiate courses taken, (d) evaluation of the college attended (in full recognition of varying standards from school to school), (e) letters of recommendation from persons who know the applicant well,. (f) personal interview(s), (g) health and emotional stability of the candidate, and (h) scores made on psychological tests (the General Aptitude Test Battery and the Medical College Admission Test).

The relative weight assigned to each of these criteria varies from college to college and, within a particular college, from year to year, depending on the makeup of the key members of the admissions committees. But, whatever the assigned weights, the intelligent layman interested in problems of premedical and medical education is inclined to assume that they are employed because, singly or in combination, they denote *reliable predictions* relative to the production of physicians competent to meet – and meet with high credit – the proclaimed ideals of the profession.

We are now obliged to ask, "What assurance are medical educators able to furnish the interested layman that this circumstance is indeed so?" The painful fact is that, with the exception of the college grades, no very appreciable positive correlation coefficient between the above-stipulated items and the student's performance during the *freshman year* in medicine has thus far been demonstrated (3). Still less has it been demonstrated that these customary measures of evaluation constitute a useful basis of prediction concerning the student's over-all performance during the *four years* at medical school and his much more important *later performance* as a practitioner of medicine. Although their usefulness is far from having yet been established, the measures referred to continue in general use and, correspondingly, affect to greater or lesser degrees of seriousness the lives of candidates (and their families) and, ultimately, the community of human-beings-at-large.

In our present arrangements, it is apparent that what Alan Gregg once aptly spoke of as the "late bloomer" at school generally fares poorly in consequence of the current impressionistic methods employed by academicians for predicting his future. As scientists and serious students of medical education, we must sooner or later ask ourselves quite candidly, "What is the fate not only of accepted but of rejected applicants; and how sure can we be that, as medical students and physicians, the rejected would not have 'succeeded' at least as well as those we have chosen to honor with admission to our medical colleges?" Unless we are prepared to answer questions of this sort, we shall find ourselves embarrassed in a culture rapidly becoming scientific.

We have prescribed, among other things, a course of premedical study, which for all practical purposes forces the candidate to "major" in biology, chemistry, and/or physics. Presumably, the reason underlying this is that we stand convinced that this and nothing less than this leads to the production of doctors best able to serve their fellow men in accord with the traditional ideals of medicine. But a vexing question arises in this connection: "How sure are we that students majoring, for example, in history, sociology, psychology, philosophy, mathematics or foreign languages would not fare as well – not only at medical college but in the later practice of medicine in their communities – as those who fulfill conventional requirements?" We do not possess data on this point. We simply do not know and are forced, when challenged directly on this score, to acknowledge that the best we can do in present circumstances is to make a "guided guess." Nevertheless, our day-by-day behavior implies (and often leads the uninformed layman to infer) that we *know* the answer.

Studies such as that recently completed by Morris (4) indicate that students who acquired during the premedical years credits in biology and chemistry considerably in excess of minimal requirements did not, in general, earn higher grades than their fellows who had met only minimal requirements and who had had a correspondingly greater exposure to other, non-science subjects. Dare we extrapolate further along the curve mapped out by such studies? Seemingly, the suggestion can be and is being given serious, if but tentative, consideration, for Rottersman (5) recently drew attention to the fact that some American medical schools have accepted students offering principally humanities credits.

The Medical Course

Since the issues involved in the foregoing discussion regarding the premedical course hold with equal force here, the matter of the medical course can in principle be dispensed with quickly. We may say in brief summary that, so far, no correlational studies have been projected by which the student's performances in medical school, as judged by the general and special ratings assigned him by his various instructors, may be made a reliable forecast of his later performance as a practitioner of medicine. It is lamentable enough that we do not have the data that might provide needed confidence in our current prescriptions for medical education; but what lays us open to most serious censure is that we possess neither the machinery, the competent long-view plans, nor the *intention* to implement the studies necessary for acquiring those data. How does it happen that this circumstance obtains, and why should it be so? Here is an area of inquiry wide open for the brave and the bold to explore.

Courses of Postgraduate Training Leading to Certification by American Specialty Boards

We shall find that the circumstances pertinent to discussion on these, the most advanced stages of medical education, do not differ in principle from those already depicted in relation to the premedical and medical courses.

Example: A well-esteemed member of the surgical fraternity (6) recently asserted that, after 20 years of experience with the American Board of Surgery, "we now know" that to produce a competent surgeon requires a minimum of three years in surgical residency followed by two years in independent practice or, better still, four years in residency, with or without the additional practice.

This statement, made as it was without reservation, reflected a confidence on the part of the speaker not wholly shared by all engaged in the training of residents. Inquiry soon revealed that the data supporting this conviction amount to the *ratings* given the candidates by the examiners of the American Board of Surgery. The board representative, in an endeavor to answer the next question as to just what is meant by a "competent surgeon," asserted, "one whom you or I would let operate upon our wives." As this was obviously not intended to be a facetious statement, the listener could not fail to recognize its highly intuitive character and to remark that precisely here was the weak link in the speaker's chain of polemics. For, given this criterion, one is next obliged to ask whether every surgeon who finds himself under the necessity of making such a decision would agree that a given man, Dr. X., is competent to operate on his wife. Differences of opinion on such matters are not uncommon and are, in point of fact, to be expected. What follows, for example, if Dr. A. says, "Dr. X for Mrs. B? Never!" To what is the detached observer now to appeal in the important matter of deciding Dr. X's "competence"?

The skeptic, listening to such tenuous defenses of proposition and unimpressed by authoritarian statements as such, feels impelled to question just what it is that the "American Board of Surgery" claims to "know" – reliably – about the requisites for training a "competent surgeon" and what evidence, beyond the current predilections and intuitions of its members, it is prepared to exhibit in support of its contention.

We may disregard for the moment the dubious reliability of establishing a rank order of the performances of candidates for certification in general surgery by adding up and averaging the arbitrary grades assigned them by *different* surgeons delegated to act as examiners at particular times and particular sections of the country. We may likewise disregard the circumstantial inevitability that each such examiner (or pair of examiners) possesses his own predilections, prejudices, and value systems and his own intuitional habits of assigning grades on both written and oral examinations; that he not infrequently holds views on surgical subjects that are unmistakably antithetic to those of other surgeons; that he is under no constraint to use the same battery of questions from one candidate to another in the oral examinations, much less that a standardization be worked out from year to year; and that the examiners themselves occasionally acknowledge off the record that, if forced to take the examinations, they might not do uniformly well.

Let us confine our attention, instead, to the authoritative announcement that "we now know that to produce a competent surgeon . . . etc." to be *operationally* meaningful, such a statement would require an unambiguous demonstration not only of the fact that, in general, those candidates who have pursued the prescribed courses of training do better on the board's examinations than those otherwise trained, but that *they also*

do better as practicing surgeons in their communities — three, five, 10 or more years later. For surely, since the mere attainment of creditable grades on the examinations does not in itself constitute the end sought in the training of a surgeon, relative standings based upon average grades cannot be accepted as the final criterion as to the *effectiveness* of the course — especially since, with minor exceptions, those with backgrounds other than specified by the board are *excluded* from examinations or are, in effect, penalized or otherwise discouraged by having to await admission to examination for an appreciably longer period than that required of candidates who meet standard requirements.

The situation is not appreciably resolved by assurances given by the board that, in addition to the examination, information bearing on the candidate's qualifications is obtained by corresponding with his past professional associates and with surgeons currently in his geographic area. For aside from the fallible potentials inherent in such information and from the very important question as to the actual qualifications of neighbor-surgeons not controlled by the board to evaluate the candidate, the vitiating circumstance is that all such reports are collected *before* the certificate is issued, usually prior to the date of examination. A little reflection makes it clear that the scientific value of such impressionistic and intuitively engendered letters, like the rank order of grades on the examinations, *inheres solely in their predictive content.* Therefore, they can be accepted as useful data only insofar as their inherent predictions are borne out of evaluations of the *subsequent performance* of the surgeon in his community. But do we now have such correlations? Is any systematic inquiry now under way, or being planned, by which we may in time reasonably expect to arrive at them? If the answers to these questions are in the negative, as they must perforce be, is it not apparent that what the board asserts it *knows* is not an established fact at all, but a mere postulate, and a very debatable one at that? (See Fig. 1.)

This prompts us to recall the principal purpose of tests of all kinds in the fields of education and qualification. Their aim is simply to permit the examiner (and those who repose faith in his conclusions to *predict* as economically as possible (in terms of the expenditure of time, effort, materials, and money) what the likely *later* performance of the examinee will be in certain realms of action. The test cannot and should not be regarded as a means of divining information about the candidate which is not capable of being uncovered by other procedures, e.g., long-sustained observation and consensus evaluation by a number of observers, whose individual prejudices may be expected largely to cancel themselves out. Such pragmatic observations and the evaluations and predictions made possible by them constitute, in point of fact, the ultimate and sole useful criteria to which we may turn — those to which all other criteria must, if they are to be operationally meaningful, refer.

Examinations come into use because it is generally uneconomical and not infrequently awkward to arrange for sustained observations and to avert the difficulties that arise from too few observers and evaluators. But, to be accepted as useful, *a test must test what it purports to test, hence, must itself be tested in order to es-*

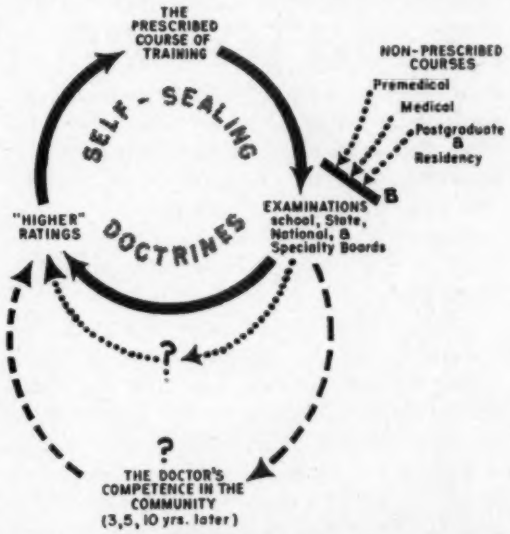

Fig. 1 — Diagram to illustrate present methods of proceeding (solid lines) and what the writer envisions as the procedure necessary to provide us with valid answers concerning the relative merits of prescribed courses of training at the three conventional levels of medical education (dotted and segmented lines). In our present methods we have unwittingly set up a self-sealing, circular doctrine, employing "higher" grades on the examinations as conclusive evidence in support of perpetuating the courses initially prescribed. "Higher" here can mean little in an epistemologic sense, since, with few exceptions, we bar (B) from examination those who lack stipulated prerequisites to taking the examination. To overcome this difficulty, we should be obliged, logically and empirically, to admit candidates from other-than-prescribed courses and examine them without prejudice. In any case, unless examinations are to be considered ends in themselves, we must ultimately determine the competence of a physician on the scene of action in his community, preferably periodically, as with licenses for driving vehicles, dispensing milk, and conducting restaurants; and then attempt to demonstrate in retrospect relationships between the preparatory courses, rating on examinations, and performances in the community. If we do not do this or if, after serious trial, it should prove impossible or infeasible to do it, we shall not be warranted in claiming we "know" what constitutes a or the "proper course of training."

tablish whether it serves in the capacity intended. This means that if an examination is to be used as substitute, in whole or part, for sustained observation, the results (score, percentile rank, etc.) must somehow be checked and rechecked against the evaluations of observers on the scenes of action, so as to determine the correlation coefficients that obtain between the two sources of data (7). Where the test results correlate poorly with evaluations reached on the living scene, the items of the test must be modified — again and again, if necessary — until high scores on the test are made by the superior performers in pragmatic situations, low scores by inferior performers, and intermediate scores by performers of intermediate ability. Then and only then can confidence be reposed in the predictive content of test scores attained by candidates of whose every-day performances the examiner remains uniformed. This has been the history of the Binet-Simon and numerous other tests usefully employed in psychology and education.

Accordingly, it is naive in the extreme to believe, as many medical teachers apparently do, that tests in this area can be "objective" in the sense of being wholly invariant to experienced observers. It is no less naive to place undue faith in scores made for certification in surgery on tests which have never been tested. "The word," as Korzybski (8) has so often warned us, "is not the thing."

A second case in point may be found in the recent ruling of the American Board of Neurological Surgery, by which one year was gratuitously added to the formal residency training period. As of 1956, the candidate for certification is required to spend four years (previously three) under the aegis of a neurosurgical division, at least two of which must be in one institution, preferably consecutively. These requirements stand, of course in addition to the previous requirements calling for a year's internship, a minimum of one year in general surgery, and after completion of the formal period of training in residence, at least two years of independent practice.

The announced purposes of the American Board of Neurological Surgery are (a) the investigation and examination of candidates for certification as bona fide specialists and (b) the review and evaluation of residency training programs, to assure that the trainee will be given an "adequate and well rounded training" (9). The board has decided that some training hospitals do not offer well-rounded programs (as it envisions them) and, in addition, has decided that, beginning in 1956, preceptor training will not be recognized as meeting its stipulations. It stands convinced that "some standard of measurement must be established for the average man" (without operationally stipulating what is meant by this term and by what devices it arrived at the notion) and to this end has decreed that, of the 48 months in residency on the neurosurgical service, the candidate must spend 30 in clinical neurosurgery and must perform a minimum of 200 operations, of which 25 are brain tumors. (Precisely how these figures were arrived at remains unexplicated.)

The board points with some measure of pride to the latitude it has provided the directors of training programs in respect of 18 of the 48 months the candidate is required to spend under the aegis of the neurosurgical division. With this proviso, the period can, at the discretion of the director, be spent by the resident in the further pursuit of clinical neurosurgery or general surgery; or in neurology, neuroanatomy, neurophysiology, investigative work, neuropathology, etc. — alone or in some chosen combination. Despite the elasticity of this provision, however, the basic issue at stake persists, for the board has manifestly gone beyond its primary task of examining candidates and has entered the realm of education, by stipulating what must be the essential features of the student's training — e.g., a year in general surgery, 30 months in clinical neurosurgery, two years in clinical neurosurgery in a single institution, a minimum number of surgical operations, etc.

Briefs in rationalistic defense of the adoption of these criteria have, of course, been formulated by the members of the board; and the most influential of the several neurosurgical societies, prompted by one of its senior members, gave a blanket vote of confidence to the American Board of Neurological Surgery while it was yet contemplating announcement of the new requirement for an additional year's training. While these apologias appear impressive on the surface, they do not meet the bald fact that each such ex cathedra stipulation carries with it an implicit prediction, namely, that its fulfilment

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assures the fraternity of medical colleagues and the community of human beings that "better neurosurgeons" will be produced thereby and, conversely, that its omission or its substitution by some other training device will, in general, result in less competent neurosurgeons. Thus grave responsibility rests upon those who hand down decrees of this sort — a responsibility to furnish upon demand the empirical data that lead compellingly to the formulation, much as they would be responsible to furnish the coin of the realm to validate a bank draft. Needless to say, neither the American Board of Neurological Surgery nor any other body has such data. Like the American Board of Surgery, the neurosurgical board has acted on mere intuition, not in terms of what is "known."

This is nowhere more apparent than during discussions of the board's requirement calling for a year's training in general surgery prior to starting neurosurgery. The language used by advocates of this requirement clearly betrays immanent impressionism: "I believe . . .," "I am convinced . . .," "Dr. A. feels that it is worthwhile," "Neurosurgery is, after all surgery, and it stands to reason the trainee should know surgery." Following another tack, it is acknowledged by those who advocate the general surgical requirement that, while a neurosurgeon need not be expected to deal technologically with gallbladder and pancreatic disease, "he should spend a year on general surgery to learn about shock, wound healing, nutrition, electrolyte and water balance." Little consideration seems to be given to the possibility that the matters mentioned might be learned on the neurosurgical wards themselves and that the recognizably important matters of nutrition, electrolyte and water balance, etc., might be as readily apprehended on the medical service as on general surgery, so that a case might as easily be made out favoring a year on internal medicine as on general surgery.

Nor is serious consideration given to the *kind* of experience obtained by the neurosurgeon-to-be during his tour of duty on general surgery. His career destination being known by those on the general surgical service, he all too often becomes "low man on the totem pole" and performs duties that add no more to his general fund of information than could be provided by other medical services. The purposes of the board, ill defined as they are in this respect, appear to be met by the neurosurgical trainee if he merely fulfils the temporal requirement of one year on general surgery, even if he acquires during this period habits of retracting, sponging, achieving hemostasis, and handling tissues that must be broken when he moves on to the neurosurgical operating room.

Perhaps the most serious circumstances of all is that individual difference is aptitude and learning potentials among trainees are disregarded in favor of elementalistic temporal formulations that can be automatically implemented by the board sitting in solemn session. By the adoption of such simple mathematical formulations, the problem of determining the qualifications of a candidate becomes measurably *easier* for the board to resolve. This should not be taken to meant that the problem is, by the same token, *cogently* resolved.

Provided that a candidate meets the stipulations regarding approved residency training; has had two years in independent practice; and can present letters of endorsement from associates, testifying to the absence of overt moral turpitude, the American Board of Neurological Surgery acknowledges and obligation to accept him for examination. But what of those with "irregular" training who seek certification? Here, matters are somewhat more difficult. In fairness to the board, it should be stated that its code carries a clause whereby it *may* accept for examination candidates who have not met all formal requirements. But serious penalties nevertheless inhere, for, in the first place, candidates with "irregular backgrounds" must have practiced neurosurgery for at least six years before being considered and, in the second, the board feels itself under no obligation to admit such persons to examination. In practice, extremely few "irregulars" are admitted to examination at all — too few, it should be noted, to permit a proper statistical comparison of their grades with those of the "regulars."

It is of no small significance that at the board examination held in New Haven in 1954, the unofficial highest over-all grade was said to have been made by a candidate whose training had been obtained under a single preceptor and who had no residency — approved or unapproved. Hence, if one is inclined to accept the examination as a competent instrument for eval-

uating candidates — a conviction obviously embraced by the board — there can be no escape from the conclusion that other roads to heaven exist in addition to that officially prescribed. In fact, there appears to be no sound reason why any penalty bearing on admission to examination should be imposed on "irregulars." If the superiority of the prescribed course, as compared with other courses of training, were to have been convincingly established in terms of scores obtained on examination *and* actual performance in the community, then a discrimination favoring those fulfilling the officially prescribed requirements might be warranted. However, such is not the case, and, until it becomes so, there is a certain danger in our accepting discrimination complacently.

Let us pause here to clarify our present position. In the first place, nothing in the foregoing should be construed to mean that the present critic is a "reactionary" whose desperate desire is to cling to "the old and tried ways" of medical education. Far from it! He earnestly believes that medical education can and should be improved, and to this end he strongly favors experimentation. That to which he desires to invite attention is the current flair for mere *innovation* and the wasteful *pseudo-experimentation* which passes for experimentation. In the second place, he is not of the opinion that *he* knows what courses of training should be implemented; what subjects are likely to prove most rewarding; and how much time needs to be spent on each of them at the premedical, medical-school, and postgraduate levels. (For all he knows, it might take much more or much less than conventionally prescribed in order to produce practitioners capable of attaining the high ideals of medicine, and it might even prove desirable that surgeons register for the Singer sewing course.) But, by the same token, he is not of the opinion that anyone else knows, and he feels a measure of disquietude when spurious claims, implicit or explicit, are made in this connection.

The issues of which we have been speaking arises from the appearance of such statements as the following:

The Board of Regents of the American College of Surgeons believes that the primary objective in the training of general surgeons is to qualify them to meet the responsibilities of the surgical care of patients. . . . Surgical proficiency sufficient to provide the best care for the patient demands, in addition to technical skill, a knowledge of and ability in the application of the basic sciences, co-ordinated with opportunity in most of the major surgical specialties, and intergrated in a program with increasing responsibility in the care of patients throughout the period of training. The Board of Regents believes that this type of training can only be acquired in a well-planned hospital program which meets the requirements of the American Medical Association, the American Board of Surgery and the American College of Surgeons, through their conference committee on graduate training in surgery. Participation by the Fellows in any other method of training future surgeons is contrary to the principles and declarations of the American College of Surgeons(10).

Little controversy is likely to be incited by the first two sentences of this pronunciamento. It is regarding the two latter sentences that some misgivings must be felt, for within them the danger of arbitrary, Jovian authoritarianism inheres. Specifically, it may be seriously questioned that the "only" manner in which the desirable results of surgical training can be acquired is the one prescribed. Considering the meager data that the American Medical Association, the American Board of Surgery, and the American College of Surgeons are able to adduce in this regard, there may be many equally good alternatives. In point of fact, many general surgeons enrolled and presumably approved as such in both the American Medical Association and the American College of Surgeons have acquired the skills they daily exercise in other ways than those now insisted upon.

There remains another, somewhat more subtle, issue. Initially, the American Board of Surgery and many other specialty boards envisioned their primary task to be that of examining and determining the *qualifications of individual candidates* who desired recognition as specialists in fact as opposed to specialists in name. Their laudable aim was to raise standards of performance in the various specialties for the ultimate general benefit of the public. So far, so good; but it was not long before the boards departed from their prime commitment. At first independently and later by joining official hands with the American Medical Association and the

American College of Surgeons, they entered the field of education and proceeded to set up arbitrary courses of training and educational standards which had to be faithfully met by candidates desiring certification at the earliest possible time. Although this move was largely unnoticed and was no doubt motivated by good intentions, it was, by any measure we can employ, an arrogant one. It heralded the circumstances that non-educational bodies, originally fashioned to pass on the qualifications of individuals, possessing neither the necessary machinery for, nor the serious intention of, determining the validity of their fiat, were now prescribing and proclaiming the method and the *only* method by which candidates were to be educated.

We repeat that, in the present circumstances, no one *knows* in an epistemologically meaningful sense precisely what the course of training should be for *any* specialty; that many alternatives are conceivable; and that the boards would do well if they were to confine their efforts to properly examining candidates (which in many instances they do not) rather than prescribe the devices by which the clinical skills they so vaguely envision are to be acquired. There can be no objection whatever to the boards' expressing *preferences*. Admittedly, a beginning has to be and should be made; and such beginning must necessarily consist of arbitrary features, more or less intuitively arrived at. But there is a wide difference between setting these features up as *preferences*, with the clear implication that they constitute but a tentative and highly hypothetical answer to questions relating to improving medical education, and uttering them as pontifications, from which there is little if any appeal. The logical consequence of adopting the former orientation is the resolution to test the validity of the hypothesis in accord with approved, rigorous methodology; nothing of the sort is prompted by adoption of the latter.

It would seem appropriate, therefore, that the boards should address themselves to the task to which they initially committed themselves. This is a big enough order as it is and, if it does not seem big enough, can be made bigger. For example, in the present *modus operandi*, the boards grant a certificate testifying to the competence of a specialist. The certificate carries an official seal, and the date of its issue is clearly set forth. But it is for the *life* of the recipient. Unless the latter commits a felony or other overt violation of the legal or moral code, he can continue to exhibit his certificate and claim all the "rights and privileges appertaining thereunto." There is, of course, no assurance that the specialist will keep up with the pace of medical advances and those of his own specialty. He could (and no doubt on occasion does) deteriorate in serious ways, for his organism is, after all, a dynamic process, ever in flux. But his certificate, being a static symbol, in no way reflects the changes in process and hence may be misleading and dangerous. The responsibility of the specialty boards might properly include *periodic evaluations* of the performances in the community of those who have once been certified, with the implied prerogative of recalling certificates whenever incompetence, as clearly delineated, develops.

Considering the dearth of evidence bearing on the relative merits of various courses of training, it would seem that dogma regarding the particular means by which those courses may and may not be implemented is gravely premature. It is, of course, possible that the writing of such prescriptions may eventually prove feasible, but, for the present, the boards would do well to remain problem-centered. Above all, they should avoid engaging themselves with problems of medical economics, e.g., to decide, as at least one board has quasi-officially decided, that the number of qualified specialists exceeds the number that can earn a "proper" living in the specialty, and be influenced thereby — to any degree in the determination of its policies regarding prerequisites of certification.

Proposal

The present article suggests that those engaged in experimentation in medical education appear in many instances not to have realized that in advising and implementing changes in the curriculum, we are currently at the stage of asking questions, not of providing answers. Our first proposal, accordingly, is that we should openly acknowledge the circumstance. The next step is to recognize that there might be other roads to heaven than those prescribed at the premedical, medical, and postgraduate-residency levels, respectively. Candor of this sort might free us *to experiment without bias* with other

courses and other modes of evaluation.

At this point we have come around full circle, for it becomes at once apparent that data accumulated in consequence of current innovations in medical education can have no scientific significance unless they can somehow be compared with data derived from other curriculums, conventional or novel. No amount of mathematizing, no amount of analysis by disinterested "statistical services," can render our present tenuous data convincing to the skeptic. To be useful, these data must at the very least be tied up with a clear delineation of what we are prepared to accept as the *operational* marks of a "competent physician" as revealed by some yardstick by which those high-order abstractions, "the competent physician," "the competent surgeon," "the competent urologist," "the competent dermatologist," etc., can be embodied and held up to the view of all who care to look. It is precisely this labor of love that we have been so skillfully evading.

Granted, the task is formidable; granted, it is loaded, in its potentials, with dynamite. But shall we conclude from the difficulties so manifestly inhering in it that the task is *impossible* of execution? Fifty years ago it was asserted by desperately minded "experts" that dependable tests for determining such complex matters as intelligence, emotional stability, musical ability, etc., are inconceivable and unattainable; yet, despite these misgivings, we now have just such tests, and, what is more, they are being made more reliable year by year. Scientists with a burning passion to know and proclaim that whereof they speak are unlikely to shrink from specters of the "impossible."

What is clearly necessary is that those concerned with research in medical education get together with colleagues in their own and other institutions for the express purpose of striking "extensional bargains," however tentative, bearing upon (a) particular goals, (b) the mechanisms by which it is hoped they may be reached, and (c) the yardsticks by which those mechanisms may be more or less "objectively" evaluated. The predictive content of all experiments must eventually be ascertained, or we shall never know whether we are improving or not.

If (as seems unlikely) extensional bargains of the sort here envisioned should prove in the end incapable of being reached, we should certainly have to resign ourselves to blundering along with the institutional methods that have characterized the past, acknowledging openly that our novel researches are, after all, merely another mode of exercising intuition. But the present writer is unconvinced that we need to surrender to any such Stygian gloom. Admittedly, it is difficult to press rigorous methodology into service, *but it can be done.* What is needed in our "experiments" in medical education is more, rather than less, scientific method.

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MEDICARE

DEPENDENTS' MEDICAL CARE PROGRAM BRIEF OF THE PLAN OF THE SECRETARY OF DEFENSE

(To be co-ordinated with the secretary of health, education, and welfare and the director, bureau of the budget)

1. Require all eligible dependents who *live with their sponsors* to clear with appropriate designated uniformed service authorities to obtain special authority for civilian care. (Where uniformed service hospital facilities are available, commanders will be required to base decisions as to whether a certificate will be issued upon the capability of the hospital as determined by the surgeon.) Eligible dependents *who do not reside with their sponsors* are not required to obtain authority other than their identification cards. (DD Form 1173)

2. *Emergency medical care,* if authorized under the revised program, may be obtained from civilian sources by all eligible dependents without authority other than their identification cards. Physicians will be required to certify the emergency.

3. *Maternity care for eligible dependents*

a. *Residing apart from their sponsors* — may continue to obtain authorized medical care from civilian sources on the basis of their identification cards (DD Form 1173).

b. *Residing with their sponsors*

(1) second and third trimester patients, if under care of a civilian physician on Oct. 1, 1958, will be permitted to continue their care with the civilian physician. However, if for reason of change of station, or other reasons, a change of physician is made, dependents will be required to clear with appropriate designated uniformed service authorities for determination of whether care will be made available in a service facility, or whether special authorization will be given for civilian care.

4. Discontinue all service not clearly specified in the law for both those living with, and apart from, their sponsors:

a. Medical care ordinarily rendered on an outpatient basis:

(1) Injuries not requiring hospitalization.

(2) Termination visits (when one physician sees patient in his office and turns over to another physician for hospital care.)

(3) Pre- and post-surgical tests before and after hospitalization.

(4) Neonatal visits (two well baby visits following hospitalization).

b. Nervous and mental diseases.

(1) Acute emotional disorders.

c. Elective surgery.

5. Require commanders in areas having more than one medical service facility to establish a clearing point to assure that all service hospitals are used to the optimum.

The Arizona Medical Association, Inc. Medicare Committee and Medicare Adjudication Committee

IN JOINT meeting of the Medicare Committee and the Medicare Adjudication Committee of The Arizona Medical Association, Inc., called and held Friday, Aug. 22, 1958, for consideration of the new plan of the secretary of defense (above) dealing with the Medicare program, the following recommendation is submitted for council deliberation and immediate action.

It was moved by Doctor Stern, seconded by Doctor Barger and unanimously carried that the Medicare Adjudication Committee and the Medicare Committee of The Arizona Medical Association, Inc., recommend to the Council of The Arizona Medical Association, Inc., that its members render services to military dependents whether living with the military sponsor or not, *only* if authorization for the specific care required be certified first by appropriate designated uniformed service authority, except in bona fide emergencies. Such action to be effective on and after Oct. 1, 1958.

The above action was recommended by the joint committees following briefing on the "plan of the secretary of defense" designed to reduce Medicare expenditures. Reasons for this decision centered around the nebulous and ethereal definitions of "elective surgery" which will not be authorized. It was considered improper to place the individual physician or the fiscal administrator in the position of deciding whether or not care would be authorized, only to discover subsequently that payment would not be made. The allegation that improper use of Medicare has resulted in a mandate from congress to reduce this

expenditure makes this action desirable to place squarely on the military the decision as to whether or not their facilities should be utilized and whether or not civilian care is justified.

On approval of this action by council, the joint committees further recommend that wide distribution of such action be circulated among the military authorities, Arizona congressional representatives, AMA, state medical associations, our component societies, and other interested agencies.

The following letter expresses the viewpoint of The Arizona Medical Association, Inc., pertaining to operation changes contemplated by the department of defense associate with the Dependents' Medical Care Program.

Aug. 28, 1958
Re: Medicare Committee
Contract No. DA-49-007-MD-806

Paul I. Robinson,
Major General, MC
Executive Director,
Office for Dependents' Medical Care
Room 1601, Main Navy Building
Washington 25, D. C.

Dear General Robinson:

THE MEDICARE Committee and the Medicare Adjudication Committee of The Arizona Medical Association, Inc., met in joint session Friday, Aug. 22, 1958. The purpose of its meeting was to receive and review the report of its fiscal administrator (Arizona Blue Shield Medical Service), represented by Mr. L. Donald Lau, executive director of Blue Shield. His report related to the Pentagon conference held in Washington, D. C. Aug. 8, 1958 respecting operation changes contemplated by the department of defense associated with the Dependents' Medical Care Program. Due consideration was given to a brief of the plan submitted by the secretary of defense, with which you are familiar.

It appears the department of defense considers it under mandate of the congress to continue the Medicare program under PL 569, but under certain limitations designed to channel more dependents to military facilities. The stated purpose appears to be to assure that all service hospitals are used to the optimum and at the same time to attempt to hold the cost of the

program to somewhere near the original appropriation of $60 million. While The Arizona Medical Association, Inc., does not agree with the defense department's approach to the solution of the problem, this association, party to the aforementioned contract, wishes to assure the department of defense of its desire to co-operate.

Without expressing any opinion respecting the merit of the proposed revisions of the Medicare program, our association is alarmed by the possibility of serious administrative problems that might be created thereby. For illustration, our association is fearful that its members will either be in the position of spending too much time attempting to find out whether an applicant is eligible (whether he or she lives with the sponsor; whether he or she has consulted with the commander at the uniformed service hospital; whether the surgery contemplated would be considered elective or not, etc.) or will run the risk of treating ineligible applicants. Our association believes that such administrative determinations should more properly be made by the government in order that the work of the members of the association can be confined to medical care contemplated by the program.

It was based upon this thinking that, effective on and after Oct. 1, 1958, The Arizona Medical Association, Inc., is directing its members to render services to eligible military dependents, whether living with the military sponsor or not, *only* if authorization for the specific care required be certified first by appropriate designated uniformed service authority, excepting in bona fide emergencies. It will expect the department of defense adequately to provide for such certification.

Very truly yours,
THE ARIZONA MEDICAL ASSOCIATION, INC.
/s/ Leslie B. Smith, M.D.
LESLIE B. SMITH, M.D.,
Secretary

LBS:C:sm

cc: Walker W. Evans, Lt. Col., MSC, contracting officer, Office for Dependents' Medical Care, Washington, D. C.

Earl C. Lowry, Colonel, MC, professional director, ODMC.

Floyd L. Wergeland, Colonel, MC, assistant to the executive director, ODMC, Washington, D. C.

L. Donald Lau, executive director, Arizona Blue Shield Medical Service, Inc., fiscal administrator, Dependents' Medical Care Program, Phoenix, Ariz.

Paul B. Jarrett, M.D., chairman, Medicare committee, 2021 North Central Ave., Phoenix, Ariz.

THE ARIZONA MEDICAL ASSOCIATION, INC.

APPOINTMENT OF SUBCOMMITTEE MEMBERSHIP COMPOSITE

THE following subcommittee chairmen were assigned, as indicated, and granted the privilege of appointing additional members, as may be necessary, to carry out the functions of the subcommittee:

(a) Cancer .....Robert B. Leonard, M.D
(b) Crippled children
.....Willard V. Ergenbright, M.D.
(c) General medicine
.....Daniel W. Kittridge Jr,. M.D.
(d) Geriatrics.....Lowell C. Wormley, M.D.
(e) Hard of hearing Joseph M. Kinkade, M.D.
(f) Maternal & child health
.....Milton C. M. Semoff, M.D.

(It is noted that the subcommittee on maternal and child health serves as a medical advisory committee to the Arizona State Department of Public Health.)

(g) Mental diseases....T. Richard Gregory, M.D.
(h) Seminars ..... (Not Assigned
(i) Tuberculosis.....Orin J. Farness, M.D.
(j) Venereal diseases..John M. Vivian, M.D.

SUBCOMMITTEE REPORTS

Cancer

In opening discussion, Doctor Schwartzmann referred to a copy of resolution before the board, adopted by the house of delegates of the association, May 3, 1958, pertaining to the proposed Arizona central cancer registry and particularly one of the directives contained therein reciting:

"... that in the establishment of this central control registry, the subcommittee on cancer of the professional board of The Arizona Medical Association, Inc., be empowered to assist in helping to formulate policies concerning the operation, and the use of the data collected by the central cancer registry."

Doctor Leonard reviewed the background leading up to the action taken by the house of delegates. It is proposed that the Arizona State Department of Health establish and maintain within its division of cancer control, with the co-operation of active support of both the hospitals and physicians of this state, a central cancer registry. Ultimately, it is desirable to make cancer a reportable disease similarly as is now required of certain contagious and infectious diseases which may require enabling legislation. While initially it is not anticipated any large expenditure of funds will be required, when the activity develops sufficient volume to make possible evaluation of statistics, etc., the health department in all probability will require a supplemental appropriation.

Doctor Leonard further stated that the set-up would be similar to that of other states, i.e. primarily a two-purpose registry: (1) to collect and evaluate statistics, and (2) from such evaluation, learn the cancer control factors in the state on two levels: (a) from an overall picture, and (b) from individual hospitals; and from such evaluation, eventually to bring corrective measures through the individual hospitals to more or less consolidate and unify the approach to cancer in the various hospitals so that at least the equivalent attack may be realized. It is anticipated such approach will be of tremendous aid toward improving the practice of medicine in the treatment and control of cancer.

Discussion ensued and questions were raised as to the possibility of (a) violation of privilege, and (b) affect upon individual physician liability (malpractice) insurance coverage arising out of the conduct of such registry. Unquestionably, these factors have been reviewed and considered by other states wherein such registries have been inaugurated; however, legal evaluation as pertains to such operation in Arizona appeared wise.

It was moved by Doctor Leonard, seconded by Doctor Wormley and unanimously carried that this board accept in principal the resolution presented (establishment of an Arizona central cancer registry), adopted by the house of delegates of this association, May 3, 1958; and that action as pertains to the implementation and pursuit of the directive to the subcommittee on cancer of this professional board, contained therein, be deferred, pending further report by Doctor Leonard to this board at its next meeting in answer to the several questions raised in discussion here today.

Continuing Files

Doctor Schwartzmann requested of each subcommittee chairman that a continuing and com-

plete file of the activities of each be developed to be used during the term of office of each such member and upon conclusion of such term, it was further directed that such file be turned over to the succeeding subcommittee chairman for his background information and continuing promulgation, thereby realizing continuity in operation.

Crippled Children

Doctor Ergenbright reported that he had lately received a copy of letter dated March 6, 1958, received from Merle E. Nott, executive director of the Arizona Society for Crippled Children and Adults, Inc., seeking in behalf of his organization, assistance in the establishment of a statewide case finding program by appointment of a medical advisory committee; also, a copy of a recent report by Ronald S. Haines, M.D., former chairman of this subcommittee. Obviously, nothing has been done in this matter; however, Doctor Ergenbright advised he will gather information and report at the next meeting.

Doctor Schwartzmann pointed out the many and varying crippled children's programs already being conducted in the several counties throughout the state resulting, in some instances, in confusion and duplication of effort. Patients presented for evaluation by one division or group on one day, re-appear at the clinics several days later for the same purpose, presented by another group. Coupled with this, it should be borne in mind all the other agencies engaged in similar effort, but representing other fields of diseases, each of whom may make like request once a precedent is established in organizing statewide medical advisory boards. This should be kept in mind when we next meet to receive Doctor Ergenbright's report and act thereon, stated the chairman. Possibly this is one of the most important items for discussion appearing on the agenda. With its many ramifications, the time has come for a thorough re-evaluation of the overall problem and a policy established on a state level. Doctor Ergenbright was requested to obtain all the information possible on the multitudinous agencies presently existing and in operation in this state — when they began functioning, their scope of operation, where their funds are obtained, etc. Further action was deferred pending receipt of this report.

At the suggestion of the Samuel Gompers Memorial Rehabilitation Center, it was reported that Dr. Henry H. Kessler, medical director of the Kessler Institute for Rehabilitation, Newark, N. J., will participate in the program of the annual meeting of the association to be held in Chandler, April 28 through May 2, 1959.

General Medicine

No report available in the absence of Dr. Daniel W. Kittredge Jr., subcommittee chairman of this section.

Doctor Kittredge, absent from the April 13, 1958 meeting of this board, by letter dated April 29, advised in the matter of "Standing Orders for Public Health Nurses," referred to his subcommittee for review and comment, "that both the public health nursing problem and the local health administration are problems of the state department of health and not under our jurisdiction." No further action indicated.

Whiplash

Following crystallization of Doctor Ross's thinking on the subject of "Whiplash," it was determined that this matter be referred to (a) the Arizona chapter — Western Orthopaedic Association, (b) the local society of neurologists or neuropsychiatrists, and (c) the neurosurgeons, requesting review and some definitive information relative thereto; then, effort will be made by the board to answer the problems from a general medical standpoint.

Hard of Hearing

No report available in the absence of Dr. Joseph M. Kinkaide, subcommittee chairman of this section.

Doctor Schwartzmann presented one item, in the absence of a division on the eye. The National Foundation for Eye Care and the American Medical Association oppose a proposal considered in an amendment to the social security law authorizing optometrists to determine blindness in public assistance cases. The American Optometric Association proposes that optometrists be authorized to make examinations for blindness in all governmental programs. The foundation repeated the argument that every time a person is declared blind by an optometrist alone, a chance is lost to determine a true medical cause of the blindness and to appraise chance of rehabilitation or cure. The AMA also urged that for the protection of patients, this authorization be dropped, as it feels ophthalmologists should be the ones to so determine.

It was regularly moved and unanimously carried that this matter be referred to council and

possibly through council to the legislation committee, expressing support of the position of the American Medical Association in this instance.

Maternal and Child Health

Doctor Semoff first called upon the board to review the scope of activity and operation of his subcommittee on maternal and child health with a view toward determining exactly what is desired and how this subcommittee might best function. He expressed dissatisfaction with past liaison between this group and the state department of health, especially when functioning as a medical advisory committee, and particularly in matters dealing with maternal and child health through Doctor Easen, maternal and child health director of the health department. Effort expended over the years in realizing successful enactment of a midwifery bill followed by development of details as to examination leading up to licensure and training; review of the deplorable maternal-infant death mortality problem in Arizona; the question of use of silver nitrate or other agent in the eyes of the newborn; these and other problems yet unsolved were discussed in considerable detail. Doctor Salsbury reiterated his continuing desire to extend the full co-operation of his department to this subcommittee, the professional board and the association.

Doctor Farness recommended that there be a closer relationship and co-operation between the maternal and child health subcommittees and the state department of health; that they try to work out to mutual advantage problems that may arise; and that if the health department calls upon the subcommittees and it finds on occasion that a problem is in existence, that an on-the-spot investigation be undertaken jointly between the two groups, the subcommittee to render its report to this board.

It was moved by Doctor Farness, seconded by Doctor Leonard and unanimously carried that no standing advisory committee be made, but that the department of health be requested to forward problems to the group and then an appropriate committee be appointed which will work and report through our board to the state department of health to answer the problem, if it be answerable.

Tuberculosis

Doctor Farness presented for discussion the matter of development of a uniform case finding system for the state through skin testing which the state health department and the Arizona Tuberculosis and Health Association is attempting to work out. He stated that this has always been his recommendation while a member of this board — that we have a statewide skin testing program in preference to mass x-rays — now supported by the public health service which has made this very recommendation that they no longer have mass x-ray surveys because of the cost load and the relative smallness of the reactors. It is recognized that skin testing requires adequate follow-up where indicated and there appears to be good possibility the program will get underway with the opening of the school season approaching. Doctor Salsbury, who was present, was urged to implement the program on a statewide basis with proper follow-up, positive reactors to be x-rayed.

The case of suspect pulmonary tuberculosis and questionable diagnosis reported by the Maricopa County Health Department was reviewed. The matter had been referred to the Maricopa County Medical Society for investigation and report on its findings. A letter dated Aug. 4, 1958, signed by its president, Dr. Paul L. Singer, was presented and read wherein it was concluded that problems of inaccuracy of diagnosis are not properly in the province of its professional committee, such right being reserved to the state board of medical examiners. Another previous case in point involving a northern Arizona physician was again reviewed. Considerable discussion ensued.

It was moved by Doctor Farness, seconded by Doctor Ergenbright and unanimously carried, that this board recommend to council the establishment of a policy, supported by the state association, that in cases of suspected active tuberculosis, the physician in charge of the patient submit to the Arizona state department of health a report on a chest film, certified and signed by a qualified radiologist; that the physician also submit a report on a series of three gastric washings by a certified laboratory, signed by a certified clinical pathologist; and that such procedures be carried out within 30 days of the request.

The American College of Chest Physicians during its 24th annual meeting in San Francisco this past June passed the following resolution:

"In view of the vital interest in improving public health and welfare, and in the eradi-

cation of diseases of the chest in particular, our position regarding the use of BCG (Baccillus Calmette-Guerin) against tuberculosis in the United States should be made known. At the present time, there is insufficient evidence that significant protection is afforded by its use. The council fully endorses the anti-tuberculosis control program of the U.S. Public Health Service, which includes research in BCG, and urges the continued support of their program."

Received and content noted.

Mental Diseases

Doctor Gregory stated that last time we met, we talked about the possibility of recommending the setting up of committees in various hospitals to pass on therapeutic abortions – this because in certain teaching hospitals in the larger cities in the more progressive states, they usually have these as a functioning part of the hospital organization. This was brought up because 42 per cent of the therapeutic abortions done are done for psychiatric reasons. Following investigation of the situation here with the local men and reviewing a few therapeutic abortions in hospitals that do them, Doctor Gregory is of the opinion there is no need therefor for these reasons:

1. The therapeutic abortions that are done in the local hospitals are reviewed by the obstetrical committees. They consist of very fine men who review the record, talk to the attending surgeon and investigate the reasons for a therapeutic abortion.
2. The social problems in terms of setting up a specific committee for this might result in raising the wrath of many outside and unrelated organizations.
3. The majority of psychiatrists here are not in favor of it.

It was moved by Doctor Gregory, seconded by Doctor Farness and unanimously carried, that we recommend that no such committees be set up; that in hospitals where therapeutic abortions are done, they have available a committee to review the indications and pass on them; and that the hospital be an accredited (registered with the American Hospital Association) one.

Doctor Gregory indicated he plans to attend the Fifth Annual Conference of Mental Health Representatives of the State Medical Associations at the Drake Hotel, Chicago, Nov. 21 and 22, 1958. Following action of this board taken April 13, 1958, pertaining to subsidization of attendance at this meeting, council on Apirl 30, 1958, observed that the professional board is granted an annual appropriation to cover its legitimate expenditures as it may deem wise and appropriate; accordingly, this matter has been referred back to the board without comment or direction as to how it shall expend its appropriation.

Attendance was authorized at the expense of this board, Doctor Gregory to report to the board on his return summarizing the proceedings.

In the matter of employment of the state auxiliary for the purpose of mental health education, Doctor Gregory advised that through the mental health hospital organization, certain educational films are available for public showing. Local psychiatrists have agreed to attend such meetings called and offer comments on the films, or otherwise. Doctor Gregory was requested to inform the auxiliary accordingly.

Venereal Diseases

Regarding venereal diseases, Doctor Schwartzmann called attention to a letter recently received from the state department of health referable to the planned seminar on diagnosis of venereal diseases, particularly syphillis, and the changes and progress to date on care associated with the VD program. The state department requests that we consider giving favorable publicity thereto through the state society and help to promote same in the two areas in which they plan to present their clinics.

Doctor Salsbury expressed the view that he feels they will be very helpful. It is planned to have the top men in the public health service on venereal diseases participate as well as outstanding private practitioners in this field who will assist. Two days each in Tucson and Phoenix during October will be arranged, the meetings to be open to all of the physicians in the state.

So far this year there is noticeable quite a definite drop in the number of new cases of syphillis reported, but quite a substantial increase in the number of cases of gonorrhea. Some study is being done regarding the increasing incidence of gonorrhea in teenagers. That is becoming not only a state problem here, but is one being recognized throughout the whole country and it is felt important to do some research and study thereon. Plans are developing to do a num-

ber of case finding programs in high incidence areas, including labor camps where it is known a high incidence in venereal diseases exists.

It was moved by Doctor Wormley, seconded by Doctor Ross and unanimously carried that we pass on favorably this request and urge the state society to aid as much as possible in getting an enthusiastic turnout for the clinics in the two areas.

Geriatrics

With increasing interest and activity in the field of aging, Doctor Schwartzmann appointed a new subcommittee on geriatrics and asked Doctor Wormley to act as its chairman, which he accepted. Attention was directed to the forthcoming "AMA Planning Conference on Medical Society Action in the Field of Aging" at the Drake Hotel, Chicago, Sept. 13 and 14, 1958. Doctor Warmley was asked to attend representing the association, expenses to be borne by AMA, and report to this board on his return summarizing the proceedings.

Seminars

While the activity of the subcommittee on seminars has been temporarily, at least, discontinued, Doctor Schwartzmann asked the members to keep such function in mind.

OTHER BUSINESS

Voluntary Health Organizations

Dealing with problems that have arisen in the raising and distributing of funds since development of the concept of united community effort, the AMA House of Delegates in session in San Francisco in June 1958, adopted the following statement offered in the form of amendments from the floor:

1. *That the house of delegates reiterate its commendation and approval of the principal voluntary health agencies.*
2. *That it is the firm belief of the American Medical Association that these agencies should be free to conduct their own programs of research, public and professional education and fund raising in their particular spheres of interest.*
3. *That the house of delegates respectfully requests that the American Medical Research Foundation take no action which would endanger the constructive activities of the national voluntary health agencies.*
4. *That the board of trustees continue actively its studies of these perplexing problems looking forward to their ultimate solution.*

Hypnosis

Another action of the AMA House of Delegates in June last dealt with the medical aspects of hypnosis. A council on mental health report on medical use of hypnosis was approved by the house which recommended that it be published in the Journal of the AMA with bibliography attached. The report stated that general practitioners, medical specialists and dentists might find hypnosis valuable as a therapeutic adjunct within the specific fields of their professional competence. It is stressed, however, that all those who use hypnosis need be aware of the complex nature of the malady involved. Teaching related to hypnosis should be under responsible medical or dental direction, the report emphasized, and should include the indications and limitations of its use. The report urged physicians and dentists to participate in high level research on hypnosis and it vigorously condemned the use of hypnosis for entertainment purposes.

It was determined further study and report on these subjects appeared indicated, the items to be listed on the agenda of the next meeting.

Consultation with Osteopaths

Doctor Schwartzmann presented and read a letter dated July 9, 1958, addressed to W. R. Manning, M.D., president of the association, by L. L. Tuveson, M.D., chairman of the industrial relations committee acting as a medical advisory board to the industrial commission, calling attention that the problem of consulting with osteopathic physicians and surgeons again has become a problem to solve, since Phoenix has now acquired an osteopathic orthopedic surgeon and an osteopathic neurosurgeon. These two men have requested that back cases should be allowed surgery by them as requested. The osteopathic profession in this town has no member who is specializing in psychiatry and the suggestion was made that the osteopaths themselves organize a board for consulting in such cases as are treated by their profession. The industrial relations committee considered it wise to bring this problem to the professional board of the association in order that some recommendation can be made in the future when questions of

consultations arise.

It was moved by Doctor Ross, seconded by Doctor Gregory and unanimously carried that insofar as the practice of medicine by doctors of medicine in this state can satisfy all of the requirements of the industrial commission for deciding on such treatment for their patients, that we feel that the doctors of medicine themselves are fully covered for their problems; and insofar as we are not privileged to freely consult with the other branches of the healing arts (non-doctors of medicine), that we feel the industrial commission, since they do recognize the other branches, are in a position of having to settle their own problems of consultation and providing such consultation as the other branches need, in their own way; and that we recommend that no attempts be made to try and have the medical profession fill in the deficiencies in the other branches of the healing arts for the industrial commission's convenience; and that we feel that this recommendation is perfectly sound even for the good of the patient, since the industrial commission is privileged at any time to transfer the care of a patient from one branch of the healing arts to another, if his condition demands such transfer.

North Mountain Hospital, Phoenix

Presented for review and recommendation was a copy of report to Clarence G. Salsbury, M.D., commissioner, Arizona State Department of Health, by Clarence R. Horton, assistant director, and Annabel Reid, hospital field representative, relating to a trip to North Mountain Hospital, Phoenix, for a routine hospital licensing inspection.

Following lengthy discussion, it was determined that a letter be directed to Doctor Salsbury advising that after reviewing the report brought to the attention of this board referable to the trip to the North Mountain Hospital by Clarence R. Horton and Annabel Reid, we are unable from the report itself to draw any conclusions to offer a salient comment; that we are willing to offer the services of one or two of the surgeons on our board to re-inspect the hospital and then will make recommendations after we have received a report from competent medical authority.

Transfer Prepaid Medical Services to Blue Shield

Presented and read was an action of the Arizona Society of Pathologists voting to petition the Council of The Arizona Medical Association, Inc., to consider the transfer of all prepaid medical services to Blue Shield. It was pointed out that this will necessitate the definition of pathology, radiology and anesthesiology as the practice of medicine and would remove payment of these services, when rendered by a physician, from Blue Cross coverage and substitute Blue Shield coverage in these instances. Council referred the matter to this board for study and opinion. Lengthy discussion ensued delving into the many ramifications and implications of the problem with an understanding of the objectives, especially of the pathologists and radiologists.

It was concluded that at the next meeting of this board, a representative of the pathology group, as well as a representative of Blue Cross and Blue Shield, be invited to attend, notifying them that each will be given a maximum of 10 minutes to present his problem to the board, following which consideration thereof will be given.

ECFMG – Program

Doctor Schwartzmann reviewed the program of the Educational Council for Foreign Medical Graduates as outlined in pamphlet entitled: "The Present and Future Status of Foreign Medical School Credentials in the United States." This program sponsored by the American Medical Association, the Association of American Medical Colleges, the American Hospital Association and the Federation of State Medical Boards of the United States is already operative and it is voted that on and after Jan. 1, 1960, the American Hospital Association will require of all member hospitals considering appointment of foreign medical graduates, that they accept only such graduates certified by the ECFMG and will take this into consideration when approving hospitals for listing. It was directed that copies of this pamphlet be obtained and distributed to the members of this board for their reading and enlightenment.

LESLIE B. SMITH, M.D.,
Secretary

By:
ROBERT CARPENTER,
Executive Secretary

CIVIL DEFENSE

*BLOOD DISEASES IN HIROSHIMA**

THE detrimental effects of an atom-bomb explosion on the human organism are due chiefly to the gamma rays and the neutrons. Where a person is 1-2 km. from the center of the explosion, death must often be expected to ensue within a very short space of time. If the distance is 2-4 km., the lesions are admittedly less severe, but still very insidious. It is true that in Hiroshima most of the survivors seemed to have recovered their health within two to three years, but they live under the constant threat of a blood disease.

Investigations carried out in Hiroshima 11 years after the dropping of the atom bomb revealed the following picture: There is a chance that people whose hemopoietic functions were damaged by radiation will get better. Where regeneration is not complete, however, the blood-forming organs may show a morbid increase in activity, leading possibly to leukemia. Both leucopenia and leucocytosis are frequently encountered in Hiroshima. Even in individuals whose white blood count appears to be normal, the bone marrow may reveal radiation damage. In addition, there is a high incidence of anemia, for 25 per cent of the men and women examined had less than 4 and 3.5 million erythrocytes respectively. The examinations were performed on 1,783 people who had suffered radiation damage from being within 3 km. of the center of the explosion; persons who settled in Hiroshima after 1946 were used for comparison purposes.

G.F.

*DELAYED EFFECTS OF THE ATOM BOMB***

INVESTIGATIONS carried out in Hiroshima and Nagasaki between 1951 and 1955 show that the delayed effects of the atom-bomb explosions have resulted in damage to various organs of the human body. Comparative statistics, insofar as they are available, reveal that the mortality rate of those exposed to radiation is higher than that of the remaining population. The incidence of malignant tumours and leukemia in particular has increased, as has that of asthma. Leukemia was particularly common in 1951, since when the number of cases has declined again; the disease is encountered about 10 times more often among patients who had been within a radius of 2 km. of the center of the explosion than among those who were further away. Eye lesions have been detected in 84 per cent of the exposed population. Adrenocortical function is frequently impaired, as shown by the Thorn test or by autopsy findings (adrenocortical atrophy). Microcephaly with disturbances of mental development is no rarity; the extent of the defect depends on the amount of radiation absorbed and on the age of the fetus or embryo at the time of the explosion. Autopsies performed on fetuses or newborn infants have revealed malformations in 18.9 per cent of cases, where at least one parent was exposed to the atom bomb.

Damage to tooth enamel tends to occur in children exposed after birth and not in the uterus. Radioactive damage is likewise often found in people who came to Hiroshima within the first five days after the explosion. Phenomena similar to those encountered in Hiroshima and Nagasaki have been observed among fishermen who suffered the radiation effects of an H-bomb at Bikini.

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*Kono, Y. (Osp. Civile, Hiroshima, Japan) Effetti tardivi della bomba "A" di Hiroshima: il quadro ematologico nei sopravvissuti a undici anni dall'esplosione. Minerva med. (It.) 49, 707, 1958.

**Kusano, N. (Hiroshima, Japan) Rassegna di dati recenti sugli effetti clinici tardivi della bomba atomica in Hiroshima e Nagasaki. Minerva med. (It.) 49, 711, 1958. (Reproduced from Ciba Literature Review)

PSYCHOENDOCRINOLOGY
edited by Max Reiss, M.D. 298 pages. Illustrated. (1958) Grune & Stratton. $7.

A beautifully produced little book on an interesting topic. It provides data, not answers, to the mind-body enigma. Clinicians and researchers both well represented.

Stacey's Medical Books, San Francisco, Calif.

FEDERAL LEGISLATION RELATED TO MEDICINE

HOUSE PASSES RESEARCH FACILITIES EXTENSION

THE house, under suspension of rules, on Aug. 5 passed and sent to the senate HR 12876 which extends for three years the $30 million a year grants act for construction of research facilities in the fields of crippling and killing diseases. The program has been in operation two years and was due to expire next year. The house was informed that all of the $90 million authorized and appropriated under the original act either has been spent or committed. After first formally approving a section of the bill that would authorize grants for facilities intended for both research and teaching, the committee reversed itself and dropped this provision. Representative Mack (D., Ill.) expressed the hope that congress next year would make this one of its first orders of business. The bill is now before the senate labor and public welfare committee.

BUDGET BUREAU SUPPORTS CLARIFICATION OF VETERANS' BENEFITS

A spokesman for the budget bureau informed the house veterans' affairs committee on Aug. 6 that the agency believes there is need for clarifying the responsibility of the government to the veteran who needs medical care. Deputy Director Robert Merriam testified that the law is not clear on how hospital beds should be used and for whom.

Pressed on the bureau's withholding of VA funds for hospital beds, Mr. Merriam said the allocation of funds to various federal agencies was dependent upon the needs and requirements of all government departments and not one specific agency. Allocation of funds, he added, was frequently a matter of timing rather than actual withholding. Mr. Merriam insisted that in no instance was any attempt ever made to circumvent the will of congress by denying necessary funds appropriated by congress.

Fred McNamara, budget bureau expert on all federal hospital matters, was asked by Rep. Edith Rogers (R., Mass.) whether the American Medical Association had met with the bureau to influence allocation of VA appropriations. Mr.

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McNamara replied that the association has met with bureau officials from time to time, but that none of the discussions has influenced "in any way" the attitude of the bureau.

The budget bureau has been a target of the veterans' affairs committee for some time, and only last week the committee reported out a bill that seeks to obviate "administrative decisions" the committee feels has kept some 5,000 beds out of service.

SIX DRUG FIRMS CITED IN PRICE FIXING COMPLAINT ON TETRACYCLINES

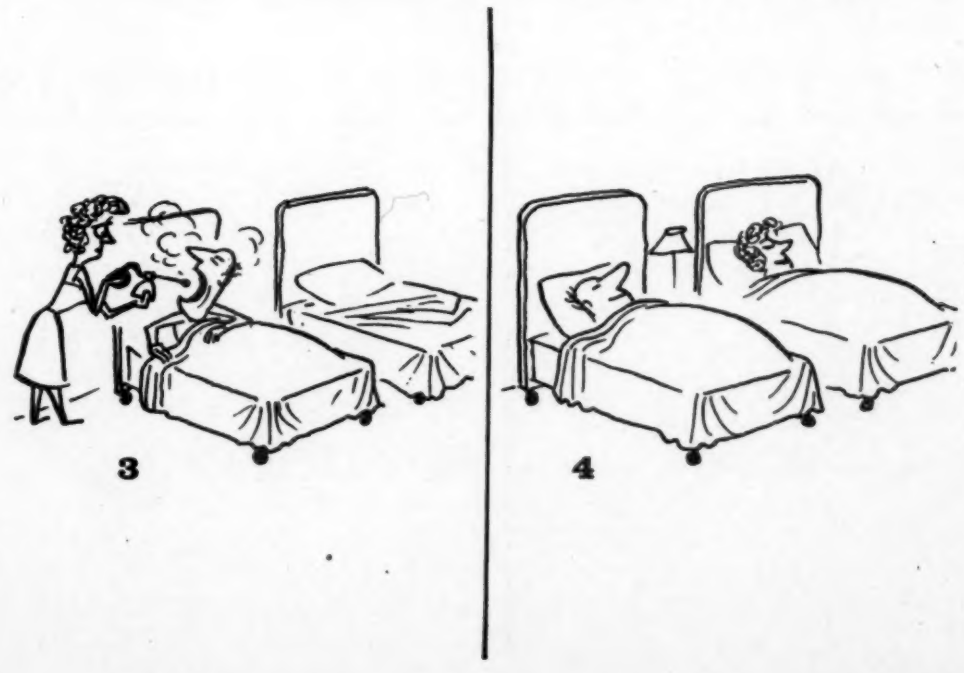
The Federal Trade Commission has cited six firms — Charles Pfizer & Co., Inc.; American Cyanamid Co.; Bristol Myers Co. and its subsidiary, Bristol Laboratories Inc.; Olin Mathieson Chemical Corp., and Upjohn Co. — on alleged price fixing of the three tetracycline drugs. The companies promptly denied the charges. The complaint was issued along with a 361-page study entitled, "Economic Report on Antibiotic Manufacture."

The report identifies American Cyanamid as the largest producer in 1956 of antibiotics; Pfizer is second; Mathieson, fourth; Upjohn, sixth, and Bristol-Myers ninth out of 12 companies in the field. Antibiotic sales that year were estimated at $330 million. FTC claims that Pfizer made false, misleading and incorrect statements to the U.S. Patent Office when it obtained a patent on tetracycline; FTC insists there was no real novelty or invention in the patent claims. FTC goes on to charge that Pfizer then issued "invalid licenses" under the patent to Cyanamid in 1955, and Bristol Laboratories, Mathieson and Upjohn in 1956. FTC set a date of Oct. 1 in New York for a hearing to show cause why a cease and desist order should not be issued.

52-32 SENATE VOTE ON TECHNICAL ISSUE SIDETRACKS KEOGH BILL

The senate, in a 52-32 vote on a technical issue, on Aug. 12 sidetracked the Keogh bill to help the self-employed set up retirement plans. Subsequently, it was learned that senate policy committees of both parties decided to oppose the bill at this time because of the loss of tax revenue it would cause.

However, backers of the bill are continuing



their efforts for favorable senate consideration in view of the overwhelming vote for it in the house. Also, they are encouraged that 32 senators voted for the measure despite the unfavorable legislative situation and the attitude of party leaders. If passage can't be effected in the days remaining before adjournment, many supporters are convinced that the progress made this year will pave the way for enactment in the new congress when it meets in January.

The senate vote developed this way: When a bill for correcting and changing many parts of the tax law came up for debate, Sen. Charles E. Potter (R., Mich.) offered the Keogh bill as an amendment. Sen. Russell Long (D., La.) and several others took the floor against the Potter amendment, complaining of the tax loss involved, of the fact that it was discriminatory, and that the senate finance committee had not studied the legislation.

Sen. Wayne Morse (D., Ore.) then moved the adoption of a substitute for the Keogh bill that would cover all taxpayers, but with a lower set-aside limit ($1,000 annually instead of the Keogh bill's $2,500). The Morse bill would result in a tax loss of as much as $1.9 billion annually, in contrast to the Keogh bill's $365 million (a treasury estimate that Keogh supporters say is too high). Morse argued that the Keogh bill was discriminatory, and that all taxpayers should have the benefit, or none should have it.

At this point, Sen. Robert S. Kerr (D., Okla.) challenged the motions as not germane to the bill actually before the senate. The ruling was that both were germane, whereupon Senator Kerr asked the senate to reverse the chair's ruling. Thus the senators were left with a choice of reasons for their votes. They could vote nay because they were (a) against the Keogh bill, (b) against the Morse bill, or (c) did not believe either bill should be made a part of the legislation under consideration, but should be handled separately and be considered by the finance committee.

BERRY PLAN APPLICATIONS LAG; DRAFT CALLS IN PROSPECT IN '59

Because of a steady decline in applications under the Berry plan, defense department says it

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may have to call up men through the doctor draft next year. The only thing that will avoid the draft calls, which have not been used for some time, will be a marked increase in Berry plan applications before Sept. 15. Under the plan, interns volunteer as reserves, and a mutually agreeable date for their call-up following completion of internship is decided in advance. Because of the drop-off in applications, the defense department has to start plans for use of the draft to meet its requirements as of July 1959.

Here are the statistics: The department requires 1,000 intern volunteers for the Berry plan to assure the physicians it will need next summer. However, of 5,400 interns liable for service, only 250 have applied. In addition, the department needs 800 applicants for residency deferment under the plan, but has received only 300 so far. This means a prospective shortage of 1,250 physicians for active duty.

HOUSE COMMITTEE REPORTS ON SHELTERS AND WEIGHT REDUCERS

Winding up lengthy studies on two subjects, the house government operations committee this week made reports with the following highlights:

Atomic Shelter Programs — Self-help cannot provide nationwide protection against the deadly effects of exploding nuclear bombs any more than self-help can build the bombs. Unless the federal government accepts the major responsibility for planning, financing and building atomic shelters, we will have no effective civil defense program.

Weight Reducing Remedies — The Federal Trade Commission has failed to discharge its statutory responsibilities to protect the public from the evils of false and misleading advertising of alleged weight-reducing preparations. As a result, the American consumer is being bilked out of approximately $100 million annually it spends on these preparations.

EISENHOWER PROPOSES NEAR EAST HEALTH EFFORT

As one of the points in his Near East development program, President Eisenhower is proposing that the U.S. join with other countries and

the World Health Organization in an all-out attack on preventable diseases in the area. He outlined broad plans to the United Nations general assembly on Aug. 13. Commented the President: "Another great challenge facing the area is disease. Already there is substantial effort among the peoples and governments of the Near East to conquer disease and disability. But much remains to be done." He left for a future date the details of such a program.

SENATE APPROVES $1 MILLION FOR PUBLIC HEALTH SCHOOL GRANTS

Without waiting for a formal request from the administration, the senate appropriations committee tacked on $1 million to a multi-agency supplemental bill for teaching grants to schools of public health. This law was signed by the President July 22. The senate gave tentative approval to committee amendments. If accepted by the house conferees, the program of graduate teaching grants could be launched this year.

FEDERAL AGENCIES MEETING ON PROPOSED AIRMAIL BAN ON VACCINES

Federal agencies, including defense department and public health service, met on a proposal of the post office department to ban the airmail shipment of etiological agents as well as vaccines and serums. Health officials are inclined to view the proposal as seriously hampering medicine because so much of today's materials must be moved swiftly by air.

The proposal dates back to the breakage on a plane several years ago of a vial of poliomyelitis virus. Concerned over passenger safety, some of the airlines through the Air Transport Association asked the post office to take steps. This was followed by a notice in the Federal Register of a proposed ruling. Interested groups were given until Sept. 22 to submit comments to Edwin A. Riley, director of postal services division, Bureau of Operations, P. O. Department, Washington 25, D. C.

PHS in the meantime has been experimenting with new and safer packaging which it feels has the breakage problem licked and, therefore, air mail shipments would be safe with adoption of the new packaging standards.

CONGRESSIONAL ROUND-UP OF HEALTH LEGISLATION IN CLOSING HOURS

Congress in the closing hours voted more health measures, but failed to act on others of interest to the profession. Passed over until the next congress were (1) mortgage loan guarantees for proprietary nursing homes, (2) Keogh legislation for tax deferral of funds paid by the self-employed into retirement plans and (3) spelling out of veterans' entitlement to veterans' administration hospitals. Measures that passed:

Food Additives — The house agreed to senate amendments, sending the bill for pretesting of food additives to the President. The measure was amended in the senate to increase the annual salary of the food and drug commissioner from $17,500 to $20,000 and to allow the National Institutes of Health to hire executive and administrative personnel at salaries ranging between $12,500 and $19,000. The new act would prohibit use in food of additives which have not been adequately tested to establish their safety.

International Health Study — The senate authorized a $30,000 study by the senate government operations committee of all international activities of federal agencies concerned with worldwide health matters, as well as international health research, rehabilitation and assistance programs. The committee would report its findings and recommendations by next Jan. 31. Senator Humphrey (D., Minn.), author of the resolution, said there was need for co-ordination of "mushrooming" U. S. activities in international health.

Mentally Retarded — The senate agreed to a house bill that would encourage expansion of teaching in the education of mentally retarded children through grants to institutions of higher learning and to state educational agencies.

Independent Offices Appropriation — The independent offices appropriations bill which previously had been vetoed, was passed, with over $800 million for running the VA hospitals and other facilities included.

PHS ANNOUNCES COMPLETION OF NEW STUDENT TRAINING PROGRAM

Some 135 students, including medical, dental and nursing pupils, recently completed summer assignments at public health service facilities under a new project called Commissioned Officer Student Training and Extern Program, or COSTEP. The program is a year-'round operation, although the summer months draw the largest number of students.

Selected students are expected to have completed at least the second year of professional training and be willing to apply for a PHS re-

serve commission. They are then put on inactive duty for a period not to exceed four months. On graduation, they may obtain medical or dental internships, or go on active duty.

PHS said the objectives are to (1) interest promising students in PHS careers, (2) help them advance professionally while employed, (3) provide an opportunity to learn more about PHS and independent agencies, and (4) provide PHS with competent younger staff. Posts are available at the National Institutes of Health, Bethesda, Md.; the Communicable Disease Center, Atlanta, Ga., and PHS hospitals and other facilities in the U. S. and Alaska. Assignments in Alaska usually are open to students with three years of professional education.

LEGISLATIVE BOXSCORE, 85th CONGRESS SECOND SESSION

The 85th congress came to an end in the early morning hours of Aug. 24. It enacted a large number of health measures, the more important ones being listed in this boxscore. It also failed to act on some bills in the closing hours. In all likelihood, they will be introduced anew in the 86th congress convening Jan. 7. At least five of the bills enacted still are awaiting the President's signature and assignment of a public law number.

Subject	*Bill No.*	*House*	*Senate*
Public works loans	S. 3497	Voted down Aug. 1	Passed April 16
Civilian pay (VA doctors)	S. 734	Public Law 85-462, June 20	
Military pay	HR 11470	Public Law 85-422, May 20	
Public health school grants	HR 11414	Public Law 85-544, July 22	
HEW appropriations	HR 11645	Public Law 85-580, Aug. 1	
Union health plans	S. 2888	Awaiting presidential signature	
Social security	HR 13549	Awaiting presidential signature	
Medical school aid	HR 6874	Hearings held	
	S. 1917		In committee
Research facilities	HR 12876	Awaiting presidential signature	
Chemical additives	HR 13254	Awaiting presidential signature	
Jenkins-Keogh taxes	HR 10	Passed July 28	
	S. 3194		In committee
Hill-Burton extension	HR 12628	Public Law 85-664, Aug. 14	
Hill-Burton loans	HR 12694	Public Law 85-589, Aug. 1	
Federal aviation agency	S. 3880	Public Law 85-726, Aug. 23	
Civil defense aid	HR 7576	Public Law 85-606, Aug. 8	
Defense reorganization	HR 12541	Public Law 85-599, Aug. 6	
Medicare appropriations	HR 12738	Public Law 85-724, Aug. 22	
Nursing home loans	S. 4035	Voted down Aug. 18	Passed July 11
	HR 13776	Pending	
Presumption of service	HR 413	Passed July 7	Postponed
connection	HR 1143	Passed July 21	
VA hospitalization	HR 10028	Reported July 30	
Aging conference	HR 9822	Awaiting presidential signature	

No Action: Medical care for aged (Forand's HR 9467); grants and scholarships for nursing (HR 306); national compulsory health insurance (HR 3764); health insurance pooling (HR 6506 and HR 6507); Rehabilitation (HR 10608 and S. 3551).

DEFENSE DEPARTMENT RULES IN FAVOR OF VETERINARY SERVICES

Secretary of Defense Neil McElroy has ruled that the veterinary services in the armed forces will be continued. This action reverses a decision of former Defense Secretary Charles Wilson who had proposed to abolish the services and transfer duties to various other agencies, including the agriculture department, and also to the military medical services. The American Medical Association joined with the American Veterinary Medical Association in strongly opposing the move.

The feeling in the defense department now is that the activities of military veterinarians have been increasing, particularly in such fields as bacteriological and radiological medicine and space medicine with its use of animals.

As an outgrowth, appointments in the regular army and air force veterinary corps, held in abeyance pending a final determination of their status, are expected to be made soon.

PERSONNEL

Maj. Gen. Harry G. Armstrong, former air force surgeon general and pioneer in space medicine, has retired after nearly 30 years service; he will reside in Washington. He was the first doctor to make a delayed opening parachute jump which led to important medical findings in delayed emergency jumps at high altitudes. General Armstrong also established the Department of Space Medicine while commadant of the Air Force School of Aviation Medicine.

Dr. Horace B. Cupp, who has been area medical director for the veterans' administration, has been named deputy for operations of VA hospitals, outpatient clinics and homes.

Dr. Irvin J. Cohen fills a new post of deputy to the assistant chief medical director for professional services.

John Wendell Gray has been appointed chief of the division of surplus property utilization in the department of HEW; he will administer a program of allocating surplus government property to hospitals, schools and civil defense units.

TEENAGERS SHYING AWAY FROM SOCIALIZED MEDICINE

THE PURDUE Panel of Purdue University surveyed thousands of representatives of high school students in every part of the nation to learn what they really know about sound medical principles for keeping fit. The results of that survey were carried in the press recently, and there was one portion of interest to physicians.

The survey report said that families of 70 per cent of today's teens carry health insurance, and it then pointed out that the tremendous growth of private medical insurance programs is credited with turning teenagers increasingly away from *socialized medicine. In the poll on the subject, 52 per cent of young people thought the government should estabilsh a permanent system of providing medical services for all,* with 22 per cent opposed and 26 per cent undecided.

But the significant point was that these figures represent a change from opinions expressed in 1948, when 80 per cent of teenagers approved of socialized medicine, 11 per cent disapproved and 9 per cent were undecided.

PROGRESS REPORT FROM THE ARIZONA POISONING CONTROL INFORMATION CENTER AT THE UNIVERSITY OF ARIZONA COLLEGE OF PHARMACY

SALICYLATE POISONING

THE MOST common chemical agents involved in accidental poisonings in Arizona, and perhaps the United States as a whole, are the salicylates, which include aspirin preparations and methyl salicylate. From July 1, 1957 to July 31, 1958, the Arizona Poisoning Control Treatment Centers have reported 607 cases of poisoning to the Arizona Poisoning Control Information Center. Of this total number of poisoning cases, 172 (28 per cent) have been due to salicylates. The widespread use of these substances and the public's unawareness of their potential toxicity are probably the main reasons for this occurrence.

Although methyl salicylate (wintergreen oil) is not involved as frequently as is aspirin, it should be emphasized that it is one of the most toxic of all the salicylate preparations. This fact is not often realized, and as a result as many as 30 deaths occur annually from the ingestion of this substance. Such factors as the pleasant odor and the high concentration of salicylate in this preparation make methyl salicylate an especially hazardous substance to children. A teaspoonful (4 ml.) of wintergreen oil contains about 45 grains of salicylate, an amount which may be fatal in children.

The National Clearinghouse for Poison Control Centers has recently issued the following sound principles concerning salicylate poisoning:

"Prevention is much preferred to treatment, but where ingestion has occurred prompt emptying of the stomach and observation are indicated, as is early institution of therapy in established cases of acute salicylism.* Any ingestion of methyl salicylate should be considered a medical emergency because it is so toxic. Wintergreen oil delays the emptying time of the

*The treatment for acute salicylism as recommended by the Arizona Poisoning Control Information Center's advisory committee can be found in the Poison Control Card File provided for each of the 18 Arizona Poisoning Control Treatment Centers.

stomach; thus gastric lavage may be used effectively up to six hours following ingestion and should be performed. The lack of symptoms following ingestion does not indicate a favorable prognosis. After emptying the stomach, the patient should be closely observed for the next 24 hours."

STATISTICS OF 77 POISONING CASES IN ARIZONA REPORTED SINCE THE JULY 1, 1958, PROGRESS REPORT

AGE:

59.7% involved under 5 year age group	(46)
13.0% involved 6 to 15 year age group	(10)
9.1% involved 16 to 30 year age group	(7)
7.8% involved 30 to 45 year age group	(6)
10.4% involved over 45 year age group	(8)

NATURE OF INCIDENT:

89.6% accidental	(69)
10.4% intentional	(8)

OUTCOME:

100.0% recovery	(77)
0.0% fatal	(0)

TIME OF DAY:

37.7% occurred between 6 a.m. and noon	(29)
32.5% occurred between noon and 6 p.m.	(25)
25.9% occurred between 6 p.m. and midnight	(20)
3.9% occurred between midnight and 6 a.m.	(3)

CAUSATIVE AGENTS:

16.9% aspirin preparations	(13)
13.0% sedatives (barbiturates, paraldehyde, Carbrital)	(10)
16.9% other medication (Chlortrimeton, Feosol, quinine, thyroid, Probanthine, Percodan, etc.)	(13)
10.4% solvents (kerosene, gasoline, turpentine, lighter fluid)	(8)
7.8% insecticides (chlordane, Real Kill, moth proofer, Gator Roach Hive, BHC fly spray)	(6)
2.6% household bleaches and detergents (Chlorox, trisodium phosphate)	(2)
18.2% food poisoning	(14)
2.6% botanicals (oleander, mesquite beans)	(2)
11.6% miscellaneous (ink, formaldehyde, Kemtone, iodine, etc.)	(9)

THE ROLE OF THE FAMILY PHYSICIAN

GOOD medical care will always depend on how early during illness a physician is consulted and how readily his advice is accepted by those who ask for it. The public has unerringly preserved these basic facts. It is not surprising that 81 per cent of the American people, or about four out of every five, report that they have a family physician to whom they turn regularly when they are sick.

As Dr. Paul Hawley, director of the American College of Surgeons, has said, "Every family needs a medical advisor upon which it can rely, whether or not such a need is recognized. The family physician is the only practitioner of medicine who can fill this role properly. He should be more than an advisor, he should be a medical manager; and, if he has earned the full confidence of the family, he will occupy such a position."

Today the average family doctor is a man in his 40s, a well-established general practitioner in private practice, deriving his income from fees. He treats an average of 26 patients a day, spending eight hours plus on home and office calls, and usually has hospital privileges. By age, usually younger doctors concentrate in smaller communities, while those family doctors over 50 show a higher than usual concentration in large metropolitan areas.

These men classify themselves as general practitioners without certification or special interest in a specialty. About 23 per cent concentrate in a specialty, and about 14 per cent are members of some American specialty board. The majority of them belong to the American Medical Association and the American Academy of General Practice.

A typical family doctor is in solo practice — 70 per cent in strictly individual practice, with 12 per cent sharing facilities with another medical man, and about 16 per cent practice in medical groups. When allowance is made for hospital visits, the estimate median work week for these physicians comes roughly to 60 hours per week. Most of the physicians, four out of five, are generally available at night and Sundays for emergency house calls.

The family physician of today carries on many

of the traditional functions of the general practitioner of former years. He works long hours, carries a heavy patient load, and is generally available for emergency duty. Adapting to the changing demands in modern medical practice, a high proportion of family doctors now have hospital staff affiliations. As far as the general public is concerned, the family physician is still the focal point of medical care and still provides the major image of what a medical practitioner is like.

CANCER GRANT TO UNIVERSITY

A GRANT of $11,178 has been awarded to the University of Arizona to cover the Phase Two of Dr. Mary Caldwell's cancer chemotherapy research project, "The Behavior of Tumors Implanted in the Mouse Treated with Extracts of Higher Plants." This is fundamental research in an extremely important field. To date, the results of Phase One are limited, but present promise.

PRINCIPLES OF INTERNAL MEDICINE

edited by **Tinsley R. Harrison**, M.D. 3rd ed. 1,782 pages plus index. Illustrated. (1958) Blakiston-McGraw. One vol. student ed. $18.50. Two vol. professional ed. $24.

In these 1,782 pages is a vast amount of important, new helpful information for diagnosis, treatment, and reference in daily practice. Part two, cardinal manifestations of disease, has been thoroughly revised. The sections dealing with disorders of circulatory and pulmonary functions have been rewritten in order to bring them into line with the rapid advances in these fields. The section on disorders of nervous function has been expanded and descriptions of the common psychiatric disorders have been added. Psychiatric and neurologic concepts have been integrated where possible. It deals with disease entities in the light of their symptomatology, abnormal physiology, pathology, chemistry, and psychology. The comprehension of the "process of illness" is emphasized more than the mere "name of the disease." This understanding of the mechanism of disease makes diagnosis more accurate and treatment more effective. There are 92 contributors.

Stacey's Medical Books, San Francisco, Calif.

REHABILITATION MEANS REFERRAL

William A. Bishop Jr., M.D.
Chairman, Medical Advisory Committee, Samuel Gompers Memorial Rehabilitation Center

THE LIBERALIZATION of America's social philosophy during the last 25 years has rekindled a dormant interest in the development of medically-oriented programs for the treatment and training of physically-handicapped persons. That interest, both lay and professional, has sparked a resurgence of a term whose occasional use medical scholars from the ancient Greeks through 19th century horse-and-buggy doctors found accurately descriptive: "rehabilitation" or "rehabilitative therapy," as the moderns are wont to call it.

Given enormous impetus by World War II medicine, the once-simple forms of rehabilitative therapy have emboldened and broadened themselves to the point where they now encompass the specialized services of physical restoration, psychological adjustment, personal counseling, and vocational training and placement. Here and there in the United States there has evolved from a co-ordination and extension of these services the occasional establishment of a medically-oriented facility of broad therapeutic dimensions to which all physicians can send their physically handicapped cases for a program of treatment rarely available to the general public in a single package. Indeed, the availability of so vast an area of treatment for every diagnosable type of crippling disease represents a new era in medicine.

Such a facility is the Samuel Gompers Memorial Rehabilitation Center in Phoenix, regarded by federal government health officials as one of the best-equipped and best-staffed installations of its kind in the nation. Neither hospital nor clinic, Samuel Gompers Memorial is a large, easily expandable therapeutic compass where every type of crippling disease lending itself to sure medical diagnosis can be treated.

Its clientele are out-patients, principally ambulatory. Whatever their ailment, they are not resident. Nor are they independently patients of the center. They are, initially and finally, patients of the physician whose referral gained them admission to the center. While undergoing treatment under the immediate supervision of the center's medical director and his staff of mdical consultants and therapists, the patients continue under the general prescriptive authority of their own physician.

To meet the challenge of a multiplicity of physical handicaps referred to it by Arizona physicians, a rehabilitation center must be variegated in the breadth of the services which it offers. Samuel Gompers Memorial is adequately meeting that challenge with comprehensive, integrated programs for each physical handicap or crippling disease referred to its departments of therapy – *physical, occupational, speech;* its testing laboratories – *psychological, vocational, audiometric;* and its social adjustment services.

Function of Programs

The programs conceived and developed in *physical therapy* are designed primarily to improve general body function by physical means, heat, massage, and exercise. Given only on the prescription of a licensed physician, many accepted treatments are applied to the various handicaps (e.g., paraffin bath, whirlpool, diathermy, electro-surge, hot packs, infra-red, ultraviolet, massage, electrical stimulations, hydrotherapy, posture and back exercise, gait training, crutch training, muscle-strengthening).

The programs set up and applied in *occupational therapy* are so calculated as to have practical application for the child (e.g., training in activities of daily living, like dressing, feeding, and toilet skills) and for the adults (e.g., retraining in activities of daily living and in specific exercises, like art, crafts, games, all aiming to increase muscle strength, improve range of motion, and develop co-ordination).

The occupational therapy department maintains a large, unusually well-equipped workshop on whose benches, power saws, industrial sewing machines, brush and spray painting equipment, carpentering tools, office machines, looms, and kitchen appliances the handicapped person receives expert guidance in the discovery and development of pre-vocational and avocational counseling.* Here, also specific guidance is given the patient to prepare him for home-bound employment, sheltered workshop activities, and similar productive confinements.

*Called "PVE" (i.e., "pre-vocational evaluation"), the appraisals are team studies and assessments of patient's vocational potential.

The area of corrective treatment and training in *speech therapy* at the center is similarly wide. Its objective of developing acceptable oral communication in a patient necessitates the training of speech muscles and the use of drills and exercises to improve his voice and articulation. The scope of speech re-education embraces the therapy of patients with aphasia, cerebral palsy, cleft palate, stuttering habit, deafness (training in lip-reading,) esophageal speech (e.g., post-laryngectomy), specific voice impairment, and other speech disabilities.

The Gompers *audiological* department provides services in five areas: *diagnostic hearing tests* (i.e., pure-tone air and bone conduction and speech- audiometric testing to measure organic auditory acuity in order to assist referring physician to make appropriate diagnosis; special tests for non-organic hearing loss – e.g., delayed auditory feedback, PGSR, Stenger, Doerfler-Stewart, shifting-voice, Lombard – upon request of referring physician; plan audiometry and psycho-galvanic skin response tests – especially for infants and young children); *pre-* and *post-surgical audiometry* (pure-tone and speech testing to enable mobilization operations and to evaluate results of completed operation); *hearing-aid consultation* (i.e., after appropriate audiometric tests for determination of patient's need for hearing aid, he is advised of benefits and limitations of amplification in particular case and is counseled in reference to his special problems in adjusting to the hearing aid); *rehabilitative services* (i.e., individual or group therapy in auditory and speech training and lip-reading); *parent-and-child pre-school hearing program* (conducted in the accredited Gompers pre-school for deaf and hard-of-hearing children – with parents as teacher-trainees).

The center's *psychological* and *vocational* testing facilities, directed by a staff of psychologists and the pre-vocational evaluator, function for the measurement and counseling of incumbent and applicant patients in the areas of intelligence, work aptitude and tolerance, personality, interest, and kindred factors.

What Is It – What It Does

The roster of crippling diseases for which prescriptive therapy is available at Gompers includes: rheumatoid arthritis, multiple sclerosis, muscular dystrophy, cerebrovascular accidents, caridovascular conditions (occupational therapy only), blindness (occupational therapy only), poliomyelitis (post), cerebral palsy, Guillain-Barre syndrome, primary muscular atrophy (amyotrophic type), peripheral nerve injuries,

spinal cord injuries, neuro-muscular problems following accidental head injury, upper and lower extremity amputees (prothesis training), hemiplegia, muscle weakness and limited-range-of-motion disabilities following multiple fractures, all types of posture defects in children and adults, any type of orthopedic disability (e.g., fractures, amputations, traumatic injuries, repair of joints, muscles, tendons, et al.), Legg-Perthe's disease of children, arthrogryposis, and others.

The non-profit rehabilitation center is owned and operated by the Maricopa County Society of Crippled Children and Adults, Inc.* Its policies are formulated by the society's board of directors and the center's medical advisory committee of 23 physicians. The policies and operations are executed by the executive director, the medical director, the supervisor of social services, and a well-qualified, experienced clinical staff of three physical therapists, two occupational therapists, three speech therapists, one audiologist, one vocational counselor, three psychologists, and four teacher-specialists in training of the deaf and of the orthopedically handicapped. Twice weekly the center conducts a joint admissions and patient-progress appraisal clinic, whose policies, operations, and prescriptions are directed by visiting medical specialist-consultants from the Phoenix area.

While not an eleemosynary institution as such, the Samuel Gompers Memorial patently does not subsist within its annual budget of upwards of $185,000 on the "adjusted" fees which it "token-charges" the greater part of its clients. (Actually, the majority of the out-patients are billed for a most insubstantial fee, in some cases as low as 25 cents per treatment.) Funds for the maintenance of the center accrue largely from the net proceeds of the annual Easter Seal campaign, from fees paid by agencies referring patients to the center, and from donations and grants by foundations, government agencies, groups, clubs, organizations, and individuals.

In no sense is the Samuel Gompers Memorial discriminatory in its admissions policy. There are no restrictions whatever concerning color, race, creed, or ability to pay.

A patient is admitted to the center only on the basis of a valid medical referral either from his physician or from a health, vocational, or educational agency (accompanied by medical history) (e.g., National Foundation for Infantile Paralysis, State Division of Vocational Rehabilitation, State Industrial Accident Commission).

Admission procedure to the center is uncomplicated once the applicant has presented a referral in writing from his physician, or, if a case from an approved agency, a medically-oriented referral from the agency.

That referral initiates the procedure.

Next, the center's supervisors of social services appraises the medical history and interviews the applicant patient (or person responsible for him). She ascertains the financial ability, or inability, of the patient.* Then, the patient is scheduled for an appearance before the center's admissions board (whose composition is the Gompers executive director, its medical director, the visiting medical consultant (who volunteers his services), the supervisors of the therapy departments, the supervisor of social services, a center psychologist, and the vocational counselor). The board convenes twice weekly, on Tuesday and Thursday afternoons at 2 o'clock.**

At the meeting, the center's medical director and the visiting medical consultant examine the patient and his medical history. The consultant then directs the commencement of the course of treatment which has been prescribed by the referring physician or, in the absence of such prescription, himself determines the nature of the treatment and outlines for the staff his instructions for its accomplishment.

The referring physician is then informed by letter of the action taken by the admissions board. Subsequent appearances of each patient before the clinical board will be scheduled as the treatments progress. After each apeparance before the board, its conclusions and recommendations are immediately forwarded to the patient's physician or, as the case may be, to the agency which has referred the patient.

Recognized Need

The availability of increased rehabilitative services for those in the general public crippled by congenital trauma, by the presence of after-

*However, the center functions as a state-wide facility, with its complete program open to any physically handicapped Arizonan equipped with a valid medical referral.

*If the patient can afford to pay the standard fee for the prescribed series of treatments, tests, tuition, etc., he is so charged. If, however, the patient's current financial status does not permit full payment, the fee is adjusted downward to a point where it matches the ability to pay. More often than not, the latter is the case, with only a modicum or token charge being made for services rendered.

**The board recognizes the right of the referring physician to be present at any conference at which his patient is being examined and, accordingly, welcomes him.

math of debilitating disease, or by plain accidental injury is everywhere recognized by the medical profession as a prime national health need. In its comprehensive report, the President's Commission on the Health Needs of the Nation has underscored these factors as major influences in making such services available: (1) a recognition by the physician of the importance of total rehabilitation from, or as close to, the moment of birth or injury or the onset of serious illness; (2) an acceptance by the physician of the importance of early referral to a medically-oriented rehabilitative agency; (3) research directed toward the disability and chronic disease; (4) education and training of many more technical personnel for service in existing and future rehabilitation facilities; (5) education of industrial and business firms, organized labor, voluntary and welfare community groups in the practical needs, particularly the vocational needs, of the handicapped.

In Arizona, as in few other areas in the United States, there does exist a highly developed rehabilitation facility where the thousands of still-untouched handicapped can get as "total" (I am speaking in comparative terms) a rehabilitation program for any type of diagnosable crippling disease as might be obtainable anywhere in the nation. In fact, it is questionable that any other center can match the Samuel Gompers Memorial in its comprehensiveness of therapeutic programming.

At this writing, Gompers has just added the latest of its rehabilitative services to the Arizona community: an integrated program of travel training, personal adjustment, and pre-vocational evaluation for the blind. The new program, fully approved by the state service for the blind and the state division of vocational rehabilitation, is the most comprehensive offered anywhere in the Southwest. With all of the center's rehabilitation services combined in a "team approach" to test, train, treat, and evaluate the blind, the program promises to orient these handicapped to personal, home, and community responsibility. The "team approach" will also utilize the center's psychological and social evaluation services and its vocational and personal counseling facilities. But in Arizona, as elsewhere, rehabilitation means referral, for the rehabilitation of thousands of physically handicapped cannot take form until doctors have been informed of the multiple expert and medically-oriented rehabilitation services offered by the Samuel Gompers Memorial Rehabilitation Center and has recognized its vital curative importance to the patient, the doctor, labor, commerce, and industry, and to the community in general.

In the final analysis, then, there has been established a facility patterned after the most successful rehabilitation centers across the nation. It is a facility dedicated to the use of the physician in private practice in Arizona, designed to complete the treatment of a disabling condition in a manner not elsewhere duplicable in Arizona. It is a facility whose realizable objective is a rehabilitation as total as the disabling condition and modern therapy permit. Its measure of victory is the return of the handicapped to the privilege of community responsibility. Its measure of success depends upon patient referral by the treating physician.

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Acta Medica Scandinavica
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WALLACE LABORATORIES, *New Brunswick, N. J.*

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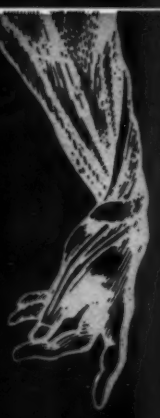

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STUDY 2[2]		"pronounced"			
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
Pyramidal tract and acute myalgic disorders	30	27	—	2	1
TOTALS	138	104 (75.3%)	28 (20.3%)	4	2

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STATE OF ARIZONA
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The Board of Medical Examiners of the State of Arizona at a regular meeting held Saturday, July 19, 1958, issued certificates to practice medicine and surgery in this state to the following doctors of medicine:

Andrews, Robert O. (GP), 601 Fifth Ave., Yuma, Ariz.

Austin, James Albert (ObG), 2302 E. Colter St., Phoenix, Ariz.

Barger, Hazel L. (ObG), 4875 E. Calle del Medio, Phoenix, Ariz.

Brown, Richard (Pd), 116 No. Tucson Blvd., Tucson, Ariz.

Burch, James N. (GP-S), 4109 N. 51st Ave., Glendale, Ariz.

Clawson, Joseph P. (S), 3825 W. Moreland, Phoenix, Ariz.

Daniels, Albert O. (Path), VA Center, Whipple, Ariz.

deLuise, Rudolph L. (GP), 7040 No. 7th St., Phoenix, Ariz.

Dozer, William E. (I), 1141 E. Glendale Ave., Phoenix, Ariz.

Folberg, Irving I. (GP), Tombstone, Ariz.

Fuglestad, Edson V. (GP), 3417 No. 28th St., Phoenix, Ariz.

Haggar, David K. (GP), Hawarden, Iowa.

Hamblin, Eldon B. (GP), 1626 No. Central Ave., Phoenix, Ariz.

Hamblin, Wayne S. (GP), 1625 E. Camelback Rd., Phoenix, Ariz.

Hershey, Gordon J. C. (GP), 4308 No. 55th Ave., Glendale, Ariz.

Hill, John F. (GP), 102 Cedar, Yankton, S. D.

Hoenecke, Heinz R. (Path), St. Joseph's Hospital, Phoenix, Ariz.

Hoffman, George L. (S), 24 North Hibbert St., Mesa, Ariz.

Hoffman, George T. (NS), 2021 No. Central Ave., Phoenix, Ariz.

Huber, K. Herbert (GP), Maricopa County Gen. Hosp., Phoenix, Ariz.

Jones, Thomas J. (D), 515 W. Hubbell St., Scottsdale, Ariz.

Kurtz, Clyde W. (U), 550 W. Thomas Rd., Phoenix, Ariz.

Lenzmeier, Albert J. (GP-S), 2202 Rockingham Rd., Davenport, Iowa.

Mason, Robert P. (R), 5818 Chamberlain Dr., Des Moines, Iowa.

Matheson, James R. (R), 2021 No. Central Ave., Phoenix, Ariz.

Monroe, Paul B. (GP), 4401 No. 39th St., Phoenix, Ariz.

Moorehead, Matthew T. (R), 808 Park Ave., Norton, Va.

Ramseyer, Jr., Harry W. (GP), 5630 No. 27th Ave., Phoenix, Ariz.

Seagraves, Gerald C. (GP), 412 W. Roosevelt St., Phoenix, Ariz.

Staman, Harry H. (OALR), 49 W. Church St., Uniontown, Pa.

Stillwell, Walter C. (GS), Mankato Clinic, Mankato, Minn.

Thorpe, Sherman W. (S), 1150 N. Country Club Dr., Mesa, Ariz.

Wanstrom, Ruth C. (Path), 1056 Newport Rd., Ann Arbor, Mich.

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1957-1958 YEAR BOOK OF EAR, NOSE, AND THROAT AND MAXILLOFACIAL SURGERY
edited by John R. Lindsay, M.D., Dean M. Lierle, M.D., and William C. Huffman, M.D. 383 pages. (1958) Year Book. $7.50. Stacey's Medical Books, San Francisco, Calif.

LOCATION INQUIRIES

BROWN, RICHARD EARL, M.D., 2719 E. 36th Ave., Denver, Colo.; *Pd;* 1954 graduate of Univ. of Cincinnati; interned at Denver General and St. Luke's Hospitals in Denver; serving residency at Children's Hosp., Denver; has fulfilled military obligations; interested in group or associate practice. Age 30; available August 1959.

CARABASI, ROBERT J., M.D., Veterans' Hosp., McKinney, Texas; *Pul and I;* 1948 graduate of Jefferson Medical College; interned at Fitzgerald-Mercy, Darby, Pa.; also served residency there and at Scott & White Clinic, Temple, Texas; age 33 and has Pennsylvania and Texas licenses; prefers group practice and will be available Sept. 1, 1958.

DOUGLAS, HERBERT JOHN, M.D., 741 East Main St., Meridan, Conn.; *GP;* 1957 graduate of State Univ. of Iowa; interned at St. Luke's Methodist Hosp., Cedar Rapids, Ia.; 27 years of age and classified 4F; interested in group or solo practice; available now.

HAFT, HAROLD, M.D., 417 W. 118 St., New York 27, N. Y.; *NS;* 1954 gradduate of State U. of New York and interned at Presbyterian Hosp., N. Y.; serving residency at Bronx VAH & Neurological Institute, N. Y.; served in U. S. Naval Reserve for 20 months; available July 1, 1959.

HILLMAN, FREDERICK J., 428 Medical & Dental Bldg., Everett, Wash.; *GS;* 1950 graduate of Washington Univ. School of Med., St. Louis, Mo.; interned at Madigan Army Hospital, Tacoma, Wash. and served residency at VA Hosp., Seattle. Has licenses in Missouri and Washington and is certified by American Board of Surgery; age 35. Interested in associate practice now.

KASE, WERNER E., M.D., 3140 N. 16th St., Philadelphia 32, Pa.; *ObG;* 1953 graduate of U. of Maryland School of Medicine and interned at Lancaster Gen. Hosp., Lancaster, Pa.; age 30. Served three-year residency at Temple U. Hosp., Philadelphia; has served military obligations; will be available Sept. 17, 1959 for associate or group type practice.

MOOREHEAD, MATTHEW T., M.D., 808 Park Ave., Norton, Va.; *R; S; Path;* 1923 graduate of Western Reserve Univ. and interned at So. Pacific Gen. Hosp., San Francisco. Licensed in 11 states and certified by the American Boards of Radiology, Surgery and Pathology. Age 60; interested in group or associate practice; possibly institutional. Available now.

POPE, JR., CHARLES H., M.D., 7615 MacKenzie Rd., St. Louis 23, Mo.; *Path;* 1954 graduate of Washington Univ., St. Louis; interned at Barnes Hosp. in St. Louis and now serving residency at Barnes and Jewish Hosp. there. Has served two-year military obligation; age 27; available July 1, 1959.

RIDGWAY, DON NEAL, M.D., 713 Emerson Street, Saginaw, Mich.; *GP;* 1954 graduate of Ohio State Univ. College of Med. and interned at Butterworth Hospital, Grand Rapids, Mich. Currently in second year of residency at St. Mary's Hosp., Saginaw, Mich. Served two years as medical officer with USPHS in Indian Health Div., Winslow, Ariz. Available in August 1959.

STONE, WAYNE B., M.D., 1822 So. Fillmore, Little Rock, Ark.;*GP* and *P;* 1932 graduate of U. of Arkansas School of Med.; externship at MO PAC Hosp., Little Rock; residency at Schumpert San., Shreveport, La. Has licenses in Ark., La., Tenn., Ky. and Ind.; has served military obligations; available in November.

LOCATION OPPORTUNITIES

ASHFORK — Pop. 700 — North centrally located — Railroad center — Contact the Women's Club, Ashfork, Ariz.

BENSON — Excellent opportunity for GP — This St. David-Benson trade area has about 5,000 population with only one doctor available. A smaller sleep-in hospital can be set up very easily. Hospital 25 miles away. Chamber of commerce will furnish telephone answering service, nine to five. Contact Bernard Fisher, D.D.S., medical committee of the chamber of commerce, Benson, Ariz., or James M. Hesser, M.D., Sixth and Huachuca streets, Benson, Ariz.

CAMP VERDE — Located in the heart of a large farming and ranching area on the Verde River. Approximately 100 miles north of Phoenix. Badly in need of a medical doctor. Contact Ivy N. Moser, R.N., Camp Verde, Ariz.

FLAGSTAFF — Pop. 17,500 — Largest city in the north central Arizona trading area. Excellent opportunity for an EENT doctor. Contact K. O. Hanson, M.D., secretary, Coconino County Medical Society, Five N. Leroux, Flagstaff, Ariz.

GILA BEND — Pop. 2,500 — 80 miles west of Phoenix — Nearest town to the Painted Rock Dam Project — Good opportunity for general practitioner. Cattle, cotton, and general farming. Office and equipment available. $150 monthly income from board of supervisors. Contact Mrs. J. F. Allison, Box 485, Gila Bend, Ariz.

HAYDEN — Pop. 3,000/4,000. Industrial practice — approximately 200 employes and dependents. Only part-time required. Coverage: Metropolitan Surgical Plan. Physician may engage in private practice also. Small company-owned clinical building (new) available for use, with X-ray equipment, diathermy equipment, etc. Fulltime nurse available to assist; clerical work to be handled by company. Company housing facilities available for physician — small rental. Beginning Sept. 1, 1958. Contact: American Smelting & Refining Company, Mr. Ben Roberts, Dept. Mgr., P. O. Box 1111, El Paso, Texas.

HOLBROOK — Population above 7,000. Located in the heart of the northeastern pine country of Arizona on U. S. Rt. 66. Need services of GP. For full details, contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

MIAMI — Opportunity for GP — Industrial hospital staffed by approximately seven doctors, who care for personnel and families of those who work for the three principal mining companies. Community served by many mining and ranching interests. Contact Robert V. Horan, M.D., Miami-Inspiration Hospital, Miami, Ariz.

MORENCI — Mining community near New Mexico-Arizona border. Pop. 10,000. Has vacancy at hospital for GP. Contact Carl H. Gans, M.D., Morenci Hospital, Morenci, Ariz.

ST. JOHNS — Seriously need a doctor of medicine, preferably a general practitioner, in this east-central Arizona community. Population is approximately 1,500 with several other small towns in the general area. About 20 miles from New Mexico in the beautiful rim country of Arizona. Contact Donald F. DeMarse, M.D., Box 397, Holbrook, Ariz.

TOLLESON — In need of GP. Serves a trading population of from 12,000 to 15,000. Ten miles west of Phoenix, with elementary and high schools, churches of all denominations. Complete office and equipment for GP is available on reasonable term lease or purchase. Contact Mr. Peter Falbo, president, chamber of commerce, 9112 West Van Buren St., Tolleson, Ariz.

TUCSON — VA Hospital is in urgent need of an orthopedic surgeon. They prefer someone who is board certified, but would take someone who has had special training as they have the local men in this field available for consultation service. State license is necessary (but not necessarily an Arizona license). Contact S. Netzer, M.D., director, professional service, VA Hospital, Tucson, Ariz.

FOR INFORMATION ON OPPORTUNITIES IN THE FIELD OF INDUSTRIAL MEDICINE, CONTACT:

Harold J. Mills, M.D., Phelps Dodge Hospital, Ajo, Ariz.

Carl H. Gans, M.D., Phelps Dodge Hospital, Morenci, Ariz.

Ira E. Harris, M.D., Miami-Inspiration Hospital, Miami, Ariz.

Charles B. Huestis, M.D., Box 928, Hayden, Ariz.

Elvie B. Jolley, M.D., Copper Queen Hospital, Bisbee, Ariz.

H. W. Finke, M.D., Magma Copper Company Hospital, Superior, Ariz.

John Edmonds, M.D., Kennecott Copper Corporation Hospital, Ray, Ariz.

Francis M. Finlay, M.D., San Manuel Hospital, San Manuel, Ariz.

GLAUCOMA
edited by **Frank W. Newell**, M.D. 245 pages. Illustrated. (1957) Josiah Macy Jr. Foundation. $4.95.

Transactions of the second conference, 1956. Four new names among the participants and four distinguished guests make a total of 23 who participated in the conference. Subjects discussed were: Mechanism concerned with aqueous formation, mathematical formulation of aqueous dynamics, mechanisms of transport by membranes, and the glaucoma problem and applanation tonometry. The volume is certain to interest advanced students of glaucoma.

Stacey's Medical Books, San Francisco, Calif.

Future Meetings

AMERICAN CANCER SOCIETY ARIZONA DIVISION

A TENTATIVE PROGRAM
FOR
THE 7TH ANNUAL CANCER SEMINAR
January 22, 23 and 24, 1959
Paradise Inn, Scottsdale, Arizona
SEMINAR COMMITTEE:
Edward H. Bregman, M.D., Chairman, Phoenix
James D. Barger, M.D., Phoenix
Robert B. Leonard, M.D., Phoenix*

Thursday

9:00 — Opening.

9:15 — Anemia of Malignant Disease — Dr. Alfred Gellhorn, New York.

11:15 — Recent Advances in Diagnosis and Treatment of Carcinoma of the Cervix — Dr. Howard Hunt, Omaha, Neb., and Dr. Alexander Brunschwig, New York.

12:30 — Lunch.

2:30-4:30 — Tumors of Central Nervous System — Dr. James W. Kernohan, Rochester, Minn.; Dr. Phillip Hodes, Philadelphia, Pa., and Dr. Edwin B. Boldrey, San Francisco, Calif.

Friday

9:00 — Rol Laughner Memorial Lecture — Treatment of Malignant Disease in the U.S.S.R. — Dr. Alexander Brunschwig, New York.

10:00 — A New Method for Diagnosis of Solitary Lesions of the Lung — Dr. L. H. Garland, San Francisco, Calif.

10:30 — Carcinoma of the Lung — Dr. Richard Overholt, Boston, Mass., and Dr. W. A. D. Anderson, Miami, Fla.

12:00 — Annual Report — American Cancer Society — Kenneth Clark, Vice President for Medical Affairs.

2:00-4:30 — Clinical and Pathological Diagnostic Problems — All participants.

Saturday

9:00 — Review of Chemotherapeutic Agents — Dr. Alfred Gellhorn, New York.

10:00 — Tumors of the Stomach — Dr. L. H. Garland, San Francisco, Calif.; Dr. Alexander Brunschwig, New York, and Dr. W. A. D. Anderson, Miami, Fla.

Saturday Afternoon

Nurses' Seminar.

For further information or reservations contact: American Cancer Society, Arizona Division — 543 E. McDowell Rd., Phoenix, Arizona, ALpine 4-7191.

**Dr. Robert B. Leonard was recently appointed by Dr. Edward H. Bregman to coordinate the activities of the First Annual Nurses' Seminar.*

2ND ANNUAL MEETING MEDICAL SOCIETY OF THE UNITED STATES AND MEXICO

YOU ARE cordially invited to attend the Second Annual Meeting of the Medical Society of the United States and Mexico, which will be held in Guadalajara November 5-8 of this year. Before that time you will receive the complete program; an outline follows:

Nov. 5th — Evening — Romper el Hielo or "Break the Ice Party."

Nov. 7th — Morning — Official inauguration by Governor Augustín Yañez, of the State of Jalisco; presentation of scientific papers.

Evening — Mexican party Circulo Frances, with Mexican food, cock fights, and mariachi music and fireworks.

Nov. 7th — Morning — Presentation of scientific papers.

Evening — Official reception at the Governor's Palace, with folk dancing.

Nov. 8th — Morning — Committee meetings.

Evening — Formal dinner dance.

In addition there will be luncheons and visits to places of interest for the ladies, a reception for all members by — the Mayor of Guadalajara, and other entertainment.

You can come here by automobile, by air, or by the special train from Nogales, we understand that you have recently had — an inquiry from our Secretary as to your plans. If you have not already done so we suggest that you reply to Dr. Juan E. Fonseca, 2409 Adams St., Tucson, Arizona, now, especially if you wish to come by train.

You will find the weather in Guadalajara cool but not cold, very similar to that of Southern Arizona. A committee here will handle your hotel reservations, which should be requested by — writing to:

Committee for Reservations, Associacion Medica.
—Gonzáles Ortega No. 23—
Guadalajara, Jal., Mexico

FUTURE MEETINGS

AMERICAN CANCER SOCIETY, INC.

1958 Scientific Session Program
Biltmore Hotel, New York, N. Y.
Oct. 20-21, 1958

SYMPOSIUM ON CANCER
OF THE COLON AND RECTUM

In addition to the presentation of papers, the speakers will participate in a panel discussion as a part of each session.

Monday, Oct. 20, 1958

Morning Session – 9 a.m. – Pathogenesis and Etiology of Cancer of the Colon and Rectum

Dr. Gilbert J. Dalldorf, The National Foundation, New York, N. Y.

Dr. Cuthbert E. Dukes, St. Mark's Hospital, London, England.

Dr. Elson B. Helwig, Armed Forces Institute of Pathology, Washington, D. C.

Dr. Ferdinand C. Helwig, St. Luke's Hospital, Kansas City, Mo.

Dr. David A. Wood, University of California School of Medicine, San Francisco, Calif.

Afternoon Session – 2 p.m. – Diagnosis of Cancer of the Colon and Rectum

Dr. Henry L. Bockus, University of Pennsylvania Graduate School of Medicine, Philadelphia, Pa.

Dr. Fred J. Hodges, University of Michigan Medical School, Ann Arbor, Mich.

Dr. Raymond J. Jackman, Mayo Clinic, Rochester, Minn.

Dr. Eugene P. Pendergrass, University of Pennsylvania School of Medicine, Philadelphia, Pa.

Dr. Howard F. Raskin, University of Chicago Clinics, Chicago, Ill.

Dr. Rupert B. Turnbull, Cleveland Clinic, Cleveland, Ohio.

Tuesday, Oct. 21, 1958

Morning Session – 9 a.m. – Meeting the Problem of Spread of Cancer of the Colon and Rectum

Dr. Warren H. Cole, University of Illinois College of Medicine, Chicago, Ill.

Dr. J. Englebert Dunphy, Harvard Medical School, Boston, Mass.

Dr. Warfield M. Firor, Johns Hopkins Hospital, Baltimore, Md.

Dr. Richard K. Gilchrist, University of Illinois College of Medicine, Chicago, Ill.

Dr. Ulrich K. Henschke, Memorial Center for Cancer and Allied Diseases, New York, N. Y.

Dr. George E. Moore, Roswell Park Memorial Institute, Buffalo, N. Y.

Dr. I. S. Ravdin, University of Pennsylvania School of Medicine, Philadelphia, Pa.

Afternoon Session – 2 p.m. – Treatment of Cancer of the Colon and Rectum

Dr. Frederick A. Coller, University of Michigan Medical School, Ann Arbor, Mich.

Dr. Michael R. Deddish, Memorial Center for Cancer and Allied Diseases, New York, N. Y.

Dr. Cuthbert E. Dukes, St. Mark's Hospital, London, England.

Dr. George A. Hallenbeck, Mayo Clinic, Rochester, Minn.

Mr. H. E. Lockhart-Mummery, St. Mark's Hospital, London, England.

Dr. Leland S. McKittrick, Harvard Medical School, Boston, Mass.

Dr. Howard A. Patterson, Columbia University College of Physicians & Surgeons, New York, N. Y.

Dr. Calvin M. Smyth, Abington Hospital, Abington, Pa.

Dr. Claude E. Welch, Massachusetts General Hospital, Boston, Mass.

ALL SESSIONS ARE OPEN TO ALL MEMBERS OF THE MEDICAL PROFESSION AND STUDENTS

Inquiries concerning this program should be addressed to:

Director, Professional Education
American Cancer Society, Inc.
521 West 57th St., New York 19, N. Y.

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National Defense Resources Conference
of the
Industrial College of the Armed Forces
Phoenix, Ariz., Oct. 27-Nov. 7, 1958

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Postgraduate courses arranged by the American College of Physicians.

Selected subjects in internal medicine:
(Nov. 3-7, 1958)
The Mayo Clinic and Mayo Foundation
Rochester, Minn.

Gastro-Enterology
(Nov. 10-14, 1958)
University of Michigan Medical School
Ann Arbor, Mich.

Congenital Heart Disease

(Nov. 17-22, 1958)
The Johns Hopkins University
School of Medicine, and
The Johns Hopkins Hospital
Baltimore, Md.

Current Research in Endocrinology
(Feb. 2, 3 and 3, 1959)
National Institutes of Health
Baltimore, Md.

Internal Medicine, Especially Therapeutics
(Jan. 12-16, 1959)
University of Illinois College of Medicine
Chicago, Ill.

Recent Advances in Cardiovascular Diseases
(Feb. 9-13, 1959)
The Mount Sinai Hospital
New York, N. Y.

Recent Advances in Internal Medicine
(Feb. 23-27, 1959)
Pennsylvania Hospital
Philadelphia, Pa.

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Interstate 43rd International Medical Assembly,
Postgraduate Medical Association
of North America
Auditorium and Statler-Hilton Hotel
Cleveland
Nov. 10-13, 1958

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National

International College of Surgeons, Mid-Atlantic regional meeting, The Homestead, Hot Springs, Va., Nov. 16-18. Write Dr. Elbyrne G. Gill, 711 Jefferson Street South, Roanoke 13, Va.

International

International College of Surgeons, 24th annual Congress of North American Federation (United States, Canadian and Mexican sections), Palmer House, Chicago, Sept. 13-17, 1959.

Write Dr. Ross T. McIntire, executive secretary, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, Ill.

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TWO LOS ANGELES UNIVERSITIES TO PRESENT COURSE IN RECONSTRUCTIVE NASAL SURGERY

The department of otolaryngology of the College of Medical Evangelists and the department of otolaryngology of the University of Southern California School of Medicine, Los Angeles, jointly will present an intensive postgraduate course in "Reconstructive Surgery of the Nasal Septum and External Nasal Pyramid" at White Memorial Hospital, Los Angeles, in January 1959.

The course will be under the guest direction of Dr. Maurice H. Cottle, professor of the department of otolaryngology, Chicago Medical School, and with the co-operation of the American Rhinologic Society. Sessions will start Tuesday evening, Jan. 6, and continue through Friday afternoon, Jan. 9. They will be resumed Monday, Jan. 12, and end at noon on Friday, Jan. 16.

There will be lectures, surgical demonstrations, anatomical exercises, seminars, and case presentations. Special emphasis will be placed on the newer concepts of nasal anatomy, embryology, and physiology.

For further information, write Dr. Leland House, 435 South Soto St., Los Angeles 53, Calif.

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POSTGRADUATE COURSE IN DISEASES OF THE CHEST

The Council on Postgraduate Medical Education of the American College of Chest Physicians will present the following postgraduate courses this fall: Clinical Cardiopulmonary Physiology, Edgewater Beach Hotel, Chicago, Ill., Oct. 13-17, 1958, and Diseases of the Chest, Park Sheraton Hotel, New York City, Nov. 10-14, 1958.

The course on clinical cardiopulmonary physiology in Chicago is the first course on this timely subject ever presented by the American College of Chest Physicians. It is the 13th annual postgraduate course sponsored by the college in Chicago. The course in New York City will offer the most recent advances in the diagnosis and treatment of chest diseases — medical and surgical — and will be the 11th annual postgraduate course sponsored by the college in New York City.

Tuition for each course is $100.

Further information may be obtained by writing to the executive director, American College of Chest Physicians, 112 East Chestnut St., Chicago 11, Ill.

AMERICAN COLLEGE OF SURGEONS

OUTLINE OF SECTIONAL MEETINGS DURING 1959: All members of the medical profession are invited to attend any of the 1959 sectional meetings of the American College of Surgeons. Cities and dates are: Charleston, S. C., Jan. 19, 20, 21; Houston, Tex., Feb. 2, 3, 4; Vancouver, B. C., Feb. 26, 27, 28; St. Louis, Mo., March 9 through 12 (Four-day meeting: joint nurses' sessions); Montereal, Quebec, April 6 through 9 (Four-day meeting: joint nurses' sessions).

CALENDAR OF MEETINGS

DATE	MEETINGS	PLACE
Oct.		
5-10	American College of Surgeons	Chicago, Ill.
9-10	Big 12 Cities Meeting	Biltmore Hotel, N.Y.C.
10 - Oec. 3	International Coll. of Surgs. 3rd Around the World post graduate clinic tour	
13-15	Natl. Rehabilitation Ass'n. Annual Meeting	Ashville, N. C.
20-24	Annual Meeting Amer. Cancer Soc. (Sci. Sess.)	Biltmore Hotel, N.Y.C.
23-25	Southwestern Medical Association	Tucson, Ariz.
23-25	Course in PG Gastroenterology — Amer. Coll. Gastroenterology	Jung Hotel, New Orleans, La.
27-31	American Public Health Association	St. Louis, Mo.
Nov.		
2-8	American Society Clinical Pathologists	Chicago, Ill.
2-8	6th International American Congress Radiology	Lima, Peru
3-8	College American Pathologists	Chicago, Ill.
5-8	Med. Soc. of the U. S. and Mexico	Guadalajara, Mexico
10-13	American Dental Association	Dallas, Texas
17-22	Radiological Society of North America	Chicago, Ill.
18-22	Pan American Dental Congress	Mexico City, Mexico
Dec.		
2-5	American Med. Ass'n. Clinical Meetings	Minneapolis, Minn.
Jan. 1959		
4-7	Southeastern Region Meeting International Coll. of Surgeons	Miami, Fla.
Feb.		
5-8	American Coll. of Radiology, Annual Meeting	Chicago, Ill.
March		
9-12	AMA 4-day Sectional Meeting	St. Louis, Mo.
16-20	National Health Council Annual Meeting	Chicago, Ill.
30 - Apr. 2	Southwestern Surg. Congress	Denver, Colo.
April		
6-8	American Radium Society	Homestead Hotel, Hot Springs, Va.
6-9	American Academy of General Practice	San Francisco, Calif.
9-12	American Ass'n. for Cancer Research Inc.	Haddon Hall, Atlantic City, N. J.
20-23	American Ass'n. Pathologists & Bacteriologists	Boston, Mass.
20-24	American College of Physicians	Conrad Hilton Hotel, Chicago, Ill.
28 - May 2	Arizona Medical Association	Chandler, Ariz.

Low Dosage KYNEX* for G.U. Infections

Sulfamethoxypyridazine Lederle

Unusual Antibacterial and Anti-infective Properties—More soluble in acid urine[1] . . . higher and better sustained plasma levels than any other known and useful antibacterial sulfonamide.[2]

Unprecedented Low Dosage—Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides—a notable asset in prolonged therapy.[2]

Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours.

KYNEX—WHEREVER SULFA THERAPY IS INDICATED

Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

References:
1 Griebie, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958
2. Editorial: *New England J. Med.* 258:48-49, 1958.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

*Reg. U. S. Pat. Off.

Woman's Auxiliary

SAFEGUARD TODAY'S HEALTH FOR TOMORROW

WE are at the beginning of a new auxiliary year with new personnel to direct us. New personalities will introduce new ideas, and place different interpretations on the traditional; however, our basic objectives remain the same. Mrs. Arthur Underwood, president-elect of the American Medical Auxiliary, stated in the bulletin, "Our goal remains the same. There is continuity in program, and no change in purpose."

Our objective for this year is: "Safeguard Today's Health for Tomorrow." Emphasis should be placed on the importance of the individual, for by sustaining physical and mental well-being in the individual, the health of the community is practically assured. Through co-operation with our husbands to provide and maintain the highest possible health standards for the community, we fulfill our duty as an auxiliary – a helper – to them, thereby achieving one of our several objectives.

There are four priority projects outlined for the year. They are AMEF, Today's Health, Recruitment in Paramedical Careers, and Safety – safeguarding the health of America by observing safety in every activity.

The auxiliary is an important organization in our communities. Success in our priority projects will provide good public relations. It is not essential that all our projects be on a large scale. Each chairman should make herself aware of the limitations and potentialities of her own group, then gear her activities to the specific needs of her community.

Plan programs for meetings which help members to understand the overall program of the auxiliary. Why not start with a history of the American Medical Association and the American Medical Auxiliary? When we are informed members, we all become more interested members.

Many interesting programs may be built on our priority projects. Excellent material is available from the national auxiliary in the way of films, pamphlets and skits.

Through a study of medical education, we will understand the necessity for continued support of the AMEF. By making ourselves aware of the need for medical personnel, we will be encouraged to recruit young people for paramedical careers.

An integral part of our program, "To Safeguard Today's Health for Tomorrow," should certainly include a program based on accident prevention in the home and on the highway. Rehabilitation of the handicapped, care of the aging and chronically ill; and mental health programs should be included.

Much can be accomplished to guard against the infiltration of adverse trends in medicine by being alert to new developments in medical legislation. Up-to-date reports on legislation should be included in meetings frequently. In this election year, know your candidates, what they stand for, and be sure to vote.

A good program is a well planned program. Plan it for the entire year. Incorporate in your program what your members want; but more important what they need, as well! Begin your meetings on time, finish on time. Allow time for fellowship. Above all, let us not lose sight of the basic objective of our organization: to assist the American Medical Association in its program for the advancement of health, thereby helping "To Safeguard Today's Health for Tomorrow."

MRS. ROBERT A. STRATTON,
Yuma, Ariz.

PATHOLOGY FOR THE PHYSICIAN
by William Boyd, M.D. 6th ed. 900 pages. Illustrated. (1958) Lea & Febiger. $17.50.

Formerly published as *Pathology of Internal Diseases,* this internationally acknowledged work is, in effect, a new book rather than a new edition. The new title conforms more closely to the subject of the text, which presents pathology as a sum total of its parts, rather than as the pathological changes in the organs of internal diseases. Dr. Boyd stresses correlation of the physiological alterations which lead to pathological changes and the relation of symptoms to lesions. Of equal interest are the sections on general considerations which introduce each chapter. In these, the newer cytological, physiological and biochemical aspects of the subject are considered. This new format will be of extra value to those studying for board examinations. The author is from the University of Toronto.

Stacey's Medical Books, San Francisco, Calif.